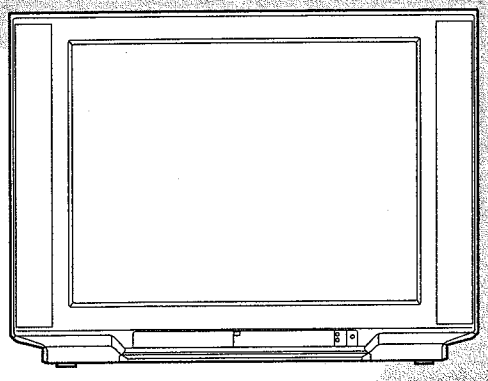
TOSHIBA

SERVICE MANUAL

COLOUR TELEVISION

C5SS2 Chassis

3350DE
3350DH



PRINTED IN JAPAN, Mar., 1996 (So)

SAFETY INSTRUCTIONS

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION" , "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTION BELOW.

X-RAY RADIATION PRECAUTION

1. The E.H.T must be checked every time the receiver is serviced to ensure that the C.R.T does not emit X-ray radiation as result of excessive E.H.T. voltage. The nominal E.H.T. for this receiver is 32.4 kV at zero beam current (minimum brightness) operating at 220V a.c. The maximum E.H.T. voltage permissible in any operating circumstances must not exceed 33.0 kV. When checking the E.H.T., use the 'High Voltage Check' procedure in this manual using an accurate E.H.T. voltmeter.
2. The only source of X-RAY radiation in this receiver is the C.R.T. To prevent X-ray radiation, the replacement C.R.T. must be identical to the original fitted as specified in the Parts List.
3. Some components used in this receiver have safety related characteristics preventing the C.R.T. from emitting X-ray radiation.
   For continued safety, replacement component should only be made after referring the Product Safety Notice below.

SAFETY PRECAUTION

1. This receiver has a nominal working E.H.T. voltage of 28.5 kV. Extreme caution should be exercised when working on the receiver with the back removed.
   Do not attempt to service this receiver if you are not conversant with the precautions and procedures for working on high voltage equipment.
   When handling or working on the C.R.T., always discharge the anode to the receiver chassis before removing the anode cap.
   The C.R.T., if broken, will violently expel glass fragments. Use shatter proof goggles and take extreme care while handling.
   Do not hold the C.R.T by the neck as this is a very dangerous practice.
2. It is essential that to maintain the safety of the customer all cable forms be replaced exactly as supplied from factory.
3. A small part of the chassis used in this receiver is, when operating, at approximately half mains potential at all times. It is therefore essential in the interest of safety that when serving or connecting any test equipment the receiver should be supplied via a suitable isolating transformer of adequate rating.
4. Replace blown fuses within the receiver with the fuse specified in the parts list.
5. When replacing wires or components to terminals or tags, wind the leads around the terminal before soldering. When replacing safety components identified by the international hazard symbols on the circuit diagram and parts list, it must be a Toshiba approved type and must be mounted as the original.
6. Keep wires away from high temperature components.

PRODUCT SAFETY NOTICE

Many electrical and mechanical components in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the X-ray radiation protection afforded by them cannot necessarily be obtained by using replacements rated at higher voltages or wattage, etc. Components which have these special safety characteristics in this manual and its supplements are identified by the international hazard symbols on the schematic diagram and parts list. Before replacing any of these components read the parts list in this manual carefully. Substitute replacement components which do not have the same safety characteristics as specified in the parts list may create X-ray radiation.

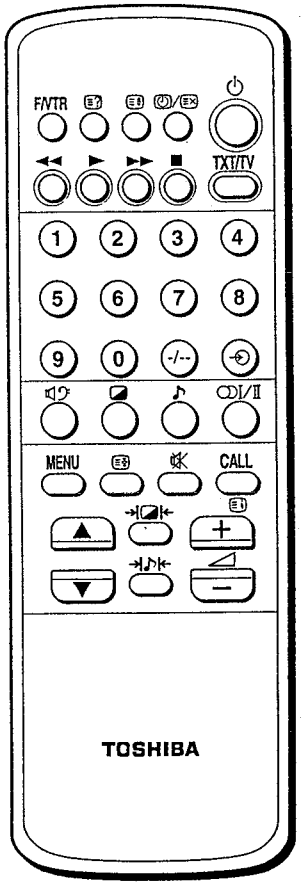
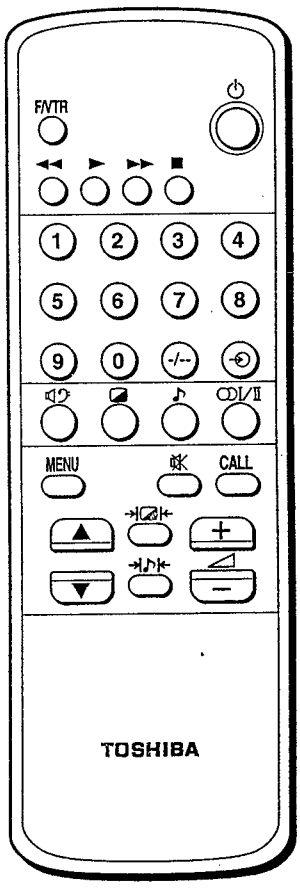
INTRODUCTION

Before Installation

To identify your TV

This manual applies to the two of models described below and there are slight differences betwen them.
Before operating the TV, please check:
— the model number of your TV.
— what is equipped with your TV according to the table below.

Difference table

Item \ Model	3350DE	3350DH
Overview of the Remote Controller		
Teletext	Equipped	Not equipped

In this manual, the instructions are givin using the model with maximum functions.

Features

AV terminals for external equipment connection

- Three sets of video/audio inputs are located on the rear. The video/audio input 3 is located on the front as well as the rear.
- Two S-VIDEO terminals on the rear (video/audio input 1 and 3) and one on the front (video/audio input 3)
- One set of monitor output terminals
- One set of fixed audio output terminals

Selectable picture and selectable sound

Allows one-touch selection of your favourite picture quality and tone quality among three preset modes and one user-set mode.

NICAM (I, B/G) and German (B/G) stereo/bilingual broadcasts receivable

OFF-timer and ON-timer

Turns off the TV automatically and will turn it back on at a preset time.

FASTEXT (3350DE only)

Auto-Power-Off

If a vacant channel is tuned or TV broadcast for a day is finished, the TV will automatically turn off after about 15 minutes. However, if the Off-timer is operating, it takes precedence. This Auto-Power-Off feature does not operate in the VIDEO or blue background OFF mode.

No-Signal-Mute

When the system receives a TV signal from the aerial input (ℸ) which does not contain a video signal, the sound will be muted. This No-Signal-Mute feature does not operate in the blue background OFF mode.

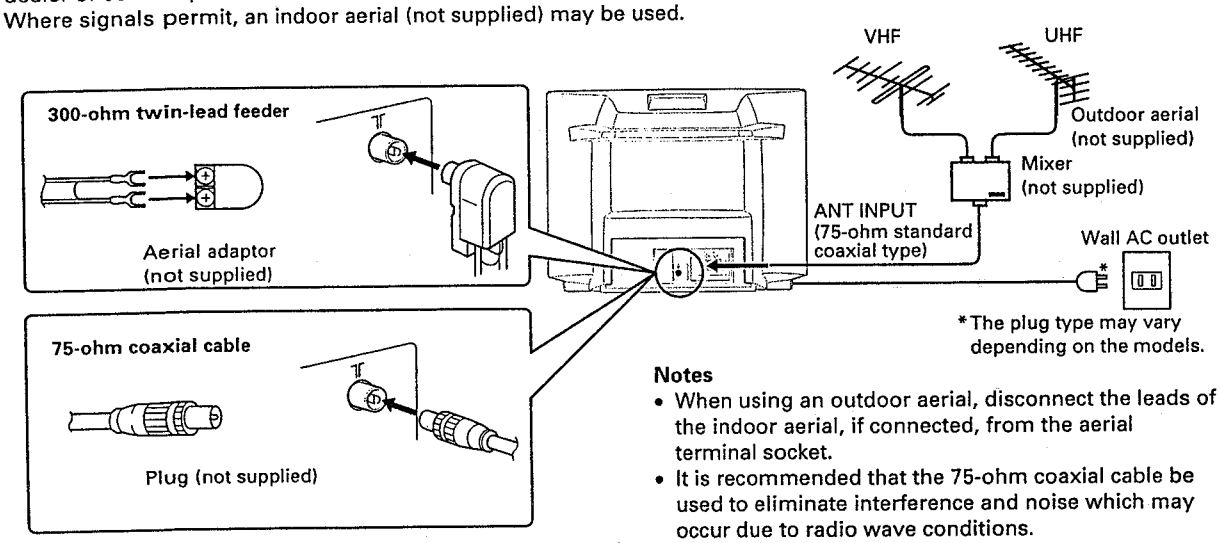
INTRODUCTION

Installation

- INSTALL the unit in a room where direct light will not fall upon the screen. Tonal darkness or a reflection on the picture screen may cause eyestrain. Soft and indirect lighting is recommended for comfortable viewing.
- ALLOW enough space between the unit and the wall for proper ventilation.
- AVOID excessively warm locations to prevent possible damage to the cabinet or components.
- RATED VOLTAGE: AC 110 V – 240 V, 50/60 Hz

To connect the aerial

Optimum reception of colour requires a good signal and will generally mean that an outdoor aerial must be used. The exact type and positioning of the aerial will depend upon your particular area. Your Toshiba dealer or service personnel can best advise you on which aerial to use in your area.
Where signals permit, an indoor aerial (not supplied) may be used.



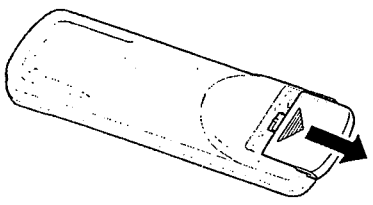
Notes

- When using an outdoor aerial, disconnect the leads of the indoor aerial, if connected, from the aerial terminal socket.
- It is recommended that the 75-ohm coaxial cable be used to eliminate interference and noise which may occur due to radio wave conditions.
- The aerial cable should not be bundled with the power cord and the like.

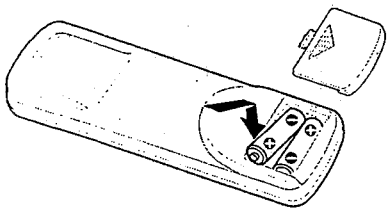
To prepare the Remote Controller

Battery installation

1 Remove the battery cover.

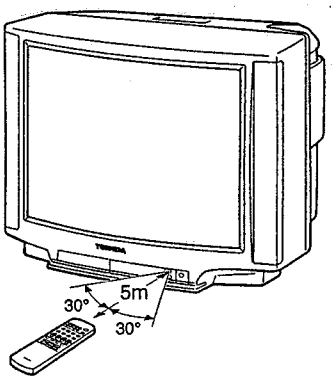


2 Insert two size AA batteries matching the +/– polarities of the battery to the +/– marks inside the battery compartment.



Tips for remote operation

Effective range

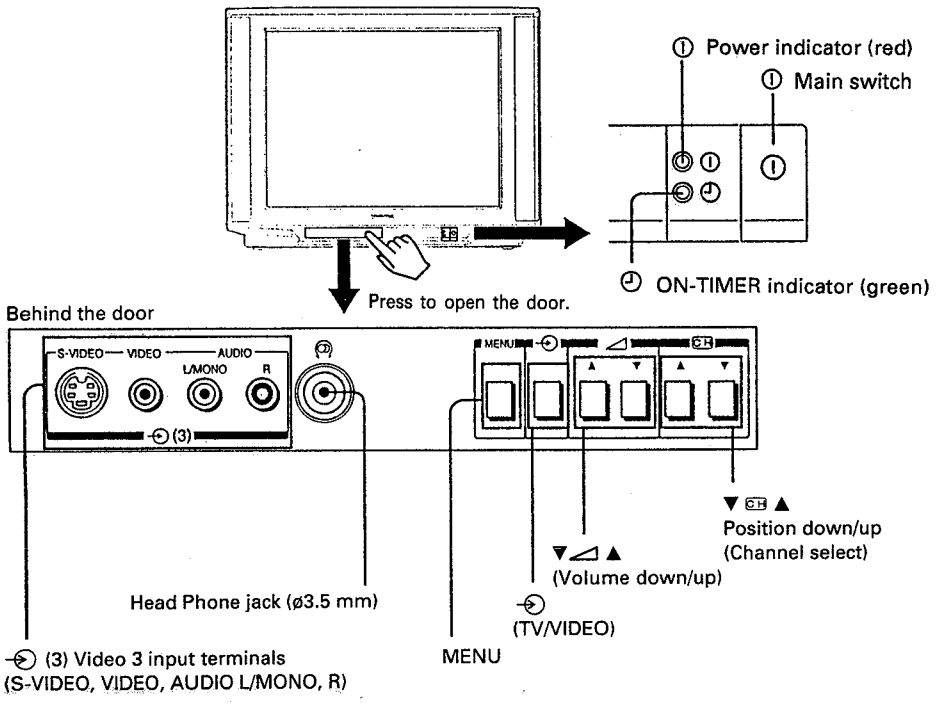


- The battery life should be about one year under normal use.
- When the remote control will not be used for a long period of time or when the batteries are worn out, remove the batteries to prevent leakage.
- Do not throw the batteries into a fire. Dispose of used batteries in the specified manner.
- Do not drop, dampen or disassemble the remote control.

Names and Functions of Controls

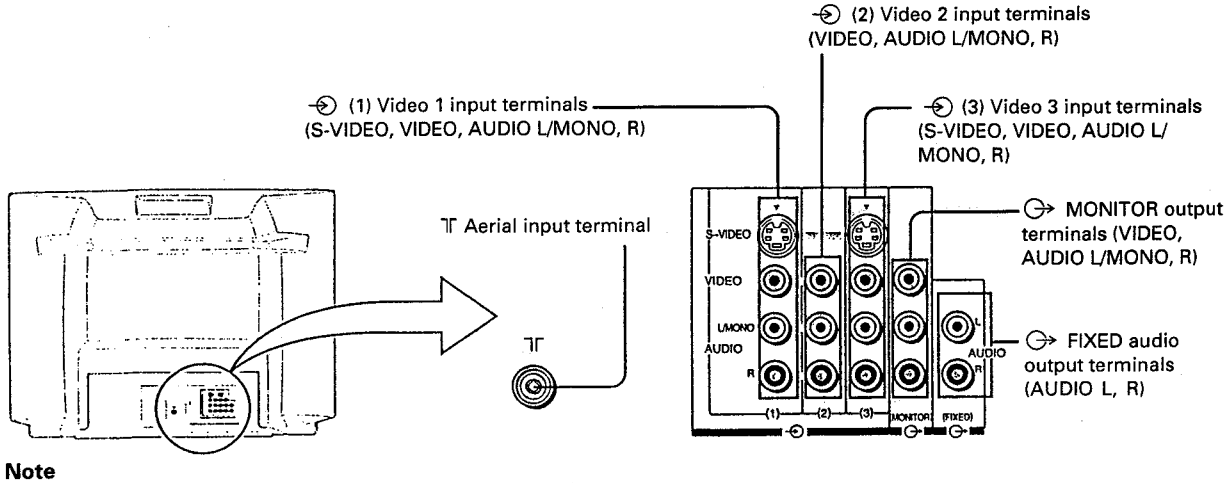
• The following describes the name of each part of the TV and Remote Controller.

Front



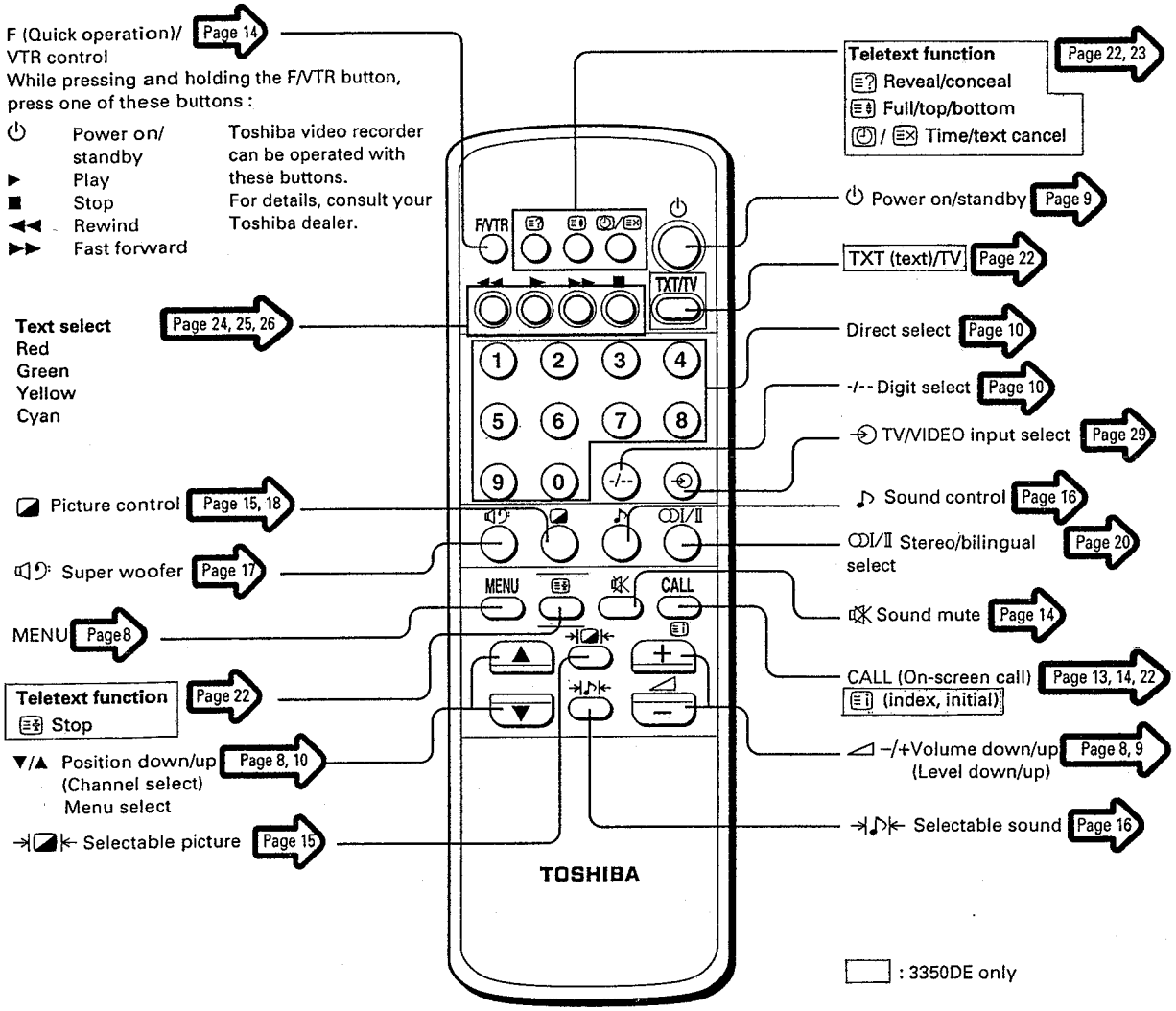
Note
Functions of MENU, ⊖, ▼◿ ▲ and ▼ CH ▲ are also provided to the Remote Controller.

Back



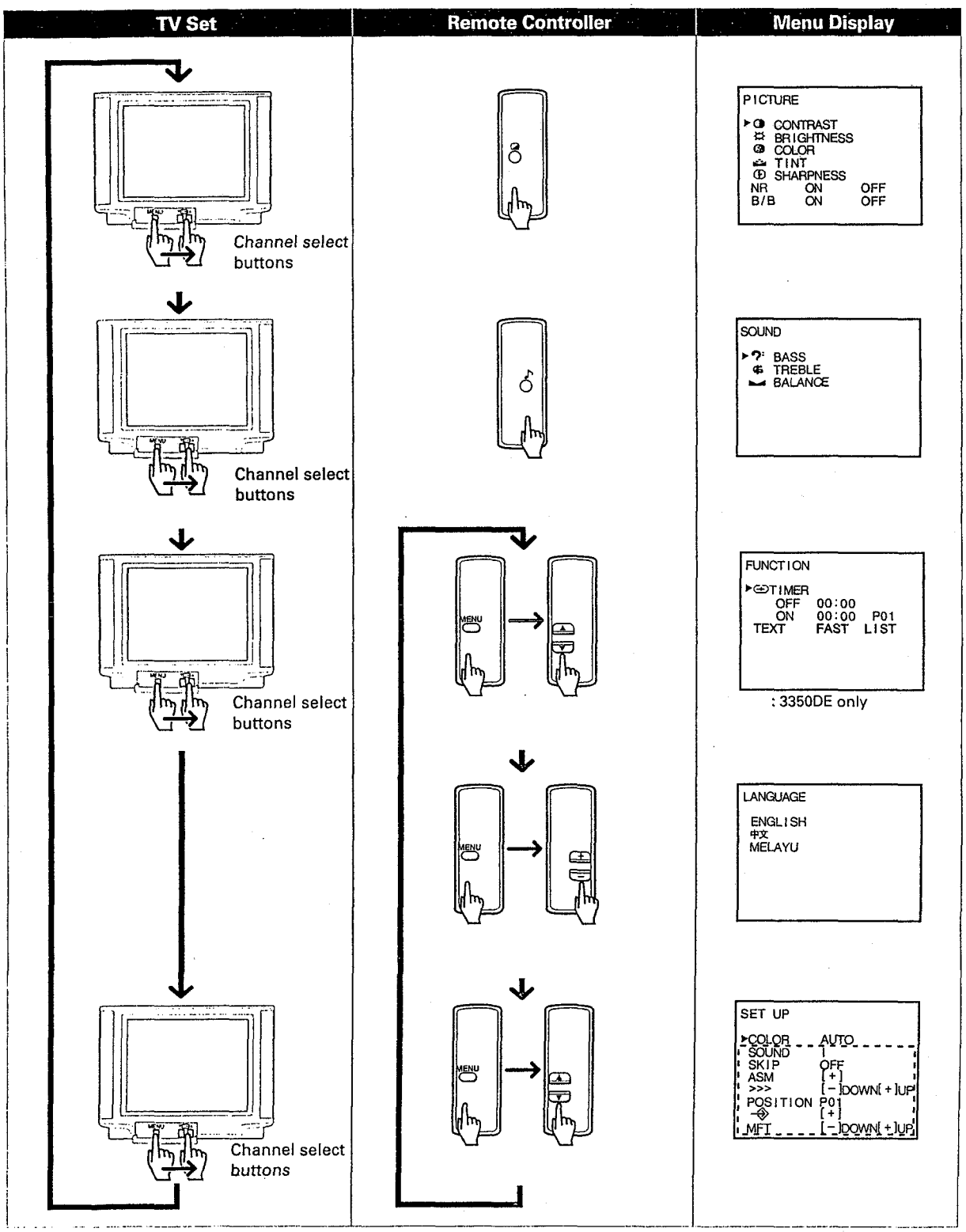
Note
To connect the TV with other AV equipments, see page 27 or 28.

Remote controller



Menu Function

- Before watching the TV, please familiarize yourself with this method to use the menu function of this TV set.



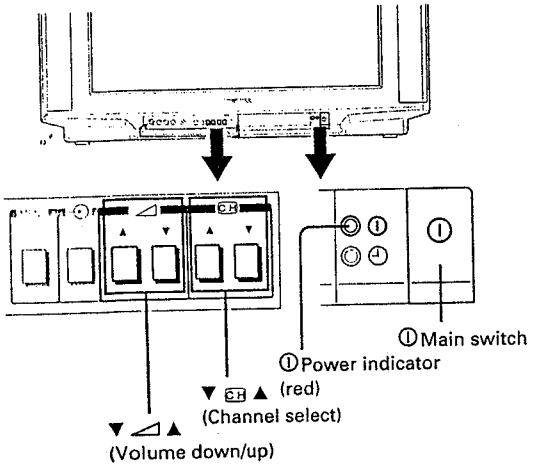
Notes

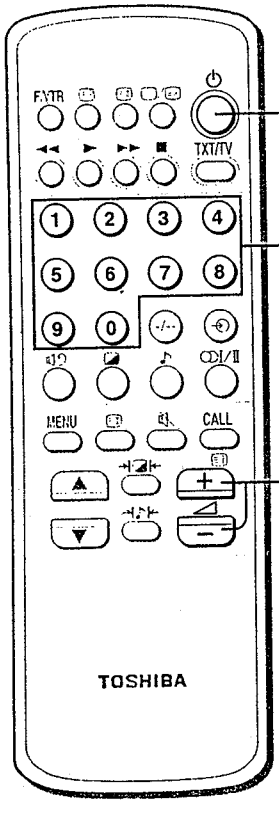
- To adjust or select (OFF/ON, etc.) for each item, use ◁ –/+ buttons.
- The ⋮⋮ area on the SET UP menu display does not appear in the video mode.

Turning the Power On/Off

- The following describes how to turn the TV on/off using the TV's main switch and the Remote Controller.

To turn the power on/off

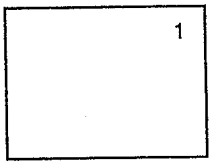




To turn the power on/off

1 Press the Main switch. The red Power indicator lights up.

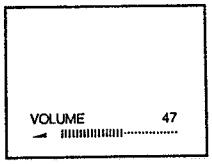
2 If no picture appears, press the ⏻ button on the Remote Controller.



Notes

- You can also turn on the set by pressing one of the direct select buttons (0 – 9) instead of the ⏻ button. By pressing the number (one digit only) where the channel you want to watch is preset, you can turn on the set and channel selection at the same time. (For the channel preset procedures, refer to pages 11 and 12.)
- When the Remote Controller is not at your hand, you can turn on the set by pressing the ▼ ◿ ▲ or ▼ CH ▲ button on the TV set.

3 Adjust the sound volume with the ◿ −/+ buttons.



4 To switch to the standby mode, press the ⏻ button.

5 To turn off completely, press the main switch.

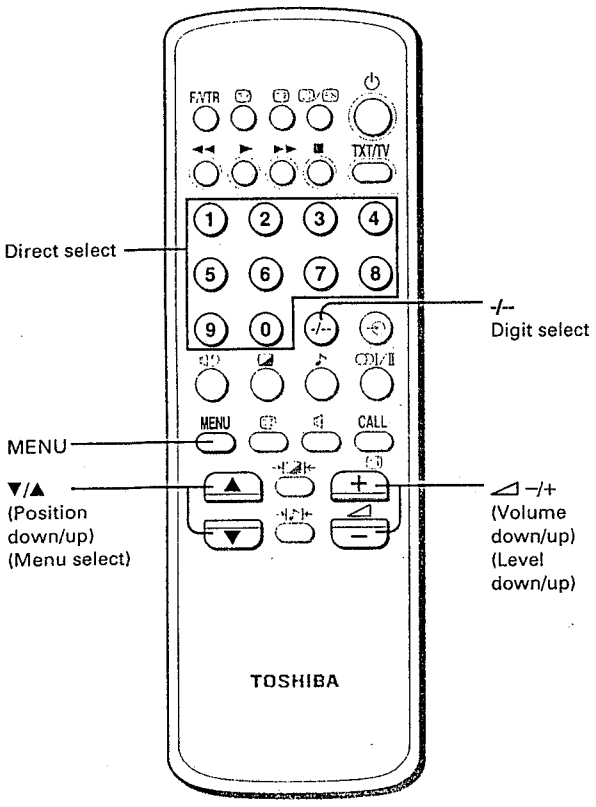
Watching TV Programmes

• You can watch TV programmes being broadcast on the preset channels.

Technical terms in this manual

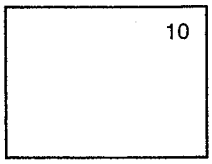
Channel: the number or abbreviation of the broadcast station frequency in each country (TCS, CH5, CH8, CH12, etc.)
Position: the number on your TV where channels are stored (0-99)

To watch a TV programme



To select a TV programme

1 Select the desired programme.

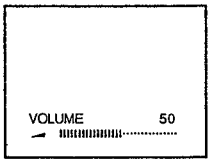


Using the direct select buttons

- To select a one-digit position number: press the -/-- button to display "–" and 0 – 9 to select a number. (0 – 9)
- To select a two-digit position number: press -/-- to display "--" and press 0 – 9 to select a number. (10 – 99)

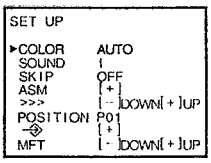
Using the ▼/▲ buttons
Press ▼ to select lower position numbers; ▲ to select higher ones.

2 Adjust the sound volume with the ◿ −/+ buttons.



If the colour or sound of a certain channel is abnormal

The colour or sound system setting may be incorrect. Press the MENU button to call up the SET UP menu on the right and change the setting as follows: For the systems in each country, refer to page 30.



- **When the colour of the picture is abnormal**
  Press the ▼/▲ buttons to move the cursor (▶) to COLOR and select the correct colour system with the ◿ −/+ buttons.
  AUTO, PAL, SECAM, 443NTSC and 358NTSC will appear cyclically.
- **When the sound is abnormal**
  Press the ▼/▲ buttons to move the cursor (▶) to SOUND and select the correct sound system with the ◿ −/+ buttons.
  I, DK, M and BG will appear cyclically.

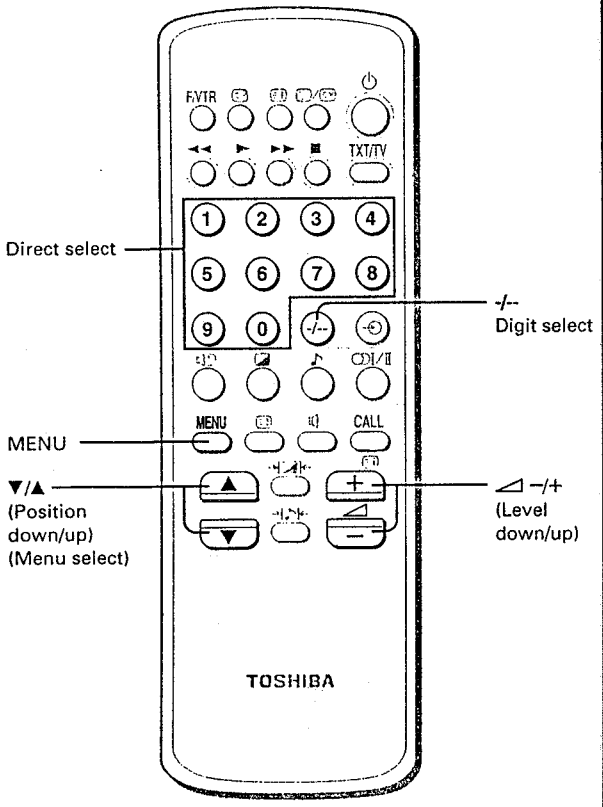
If the sound or picture of every channel is abnormal

Preset the channels using the ASM (Automatic Search Memory). See page 11.

Tuning in

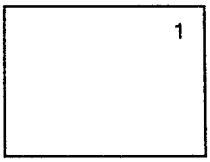
- First, use the ASM (Automatic Search Memory) function to preset all active channels in your area automatically.
  Then, arrange the preset channels with the MANUAL SEARCH (>>>), MFT (Manual Fine Tuning) and SKIP functions so that you can tune into only desired channels.
- This section shows how to tune in channels using mainly the Remote Controller. You can also perform the system select, ASM, MANUAL SEARCH (>>>), MFT and SKIP operations using the buttons on the TV set. See page 8.

To preset channels (ASM)

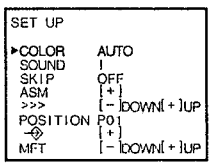


ASM (Automatic Search Memory)

1 Select the head of the position number to start the ASM with the ▼/▲ buttons or the direct select buttons.

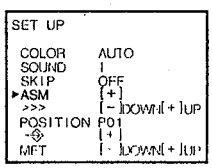


2 Press the MENU button repeatedly to call up the SET UP menu on the screen.

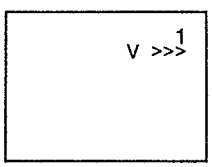


3 Confirm that "COLOR" is set to "AUTO" and "SOUND" is set to proper system.
If not, press the ▼/▲ buttons to move the cursor (▶) to "COLOR" or "SOUND" and press the ◿ −/+ buttons to select each proper system. (See page 30.)

4 Press the ▼/▲ buttons to move the cursor (▶) to "ASM".



5 Press the ◿ + button to start the ASM. All active channels will be preset automatically.
When presetting is complete, the initial position number will reappear.



After presetting

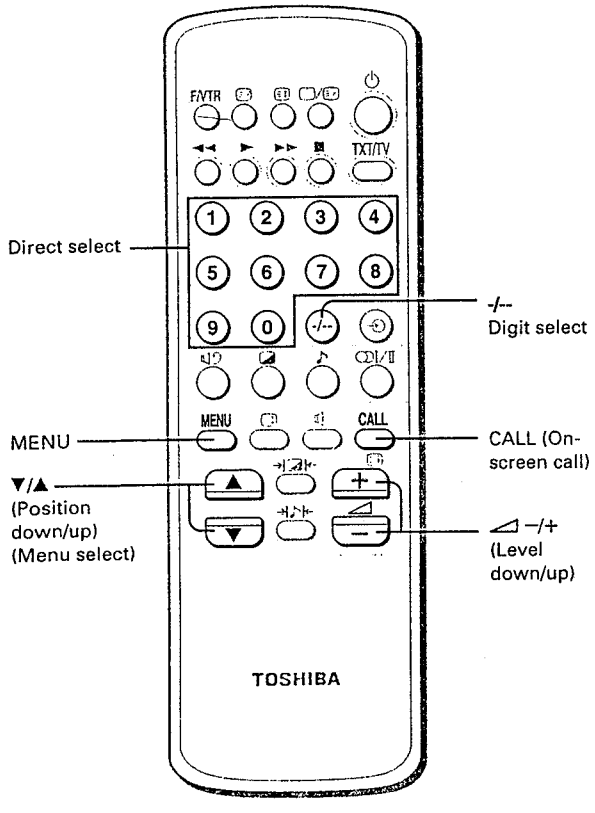
Check the preset channels by pressing the ▼/▲ buttons.

- If the picture or sound of a certain channel is not good, re-tune the channel using the ASM, MANUAL SEARCH or MFT function. (See page 12 and 13).
- If the colour of a certain channel is abnormal, automatic colour system selection (AUTO) may malfunction, or sound system selection is wrong. In such a case, select another colour and/or sound system. (See page 30.)

Tuning in (continued)

- Use the MANUAL SEARCH function if desired channels cannot be preset with the ASM or if you would like to preset the desired channels to specific position numbers one by one.
- It is convenient if you set the channel numbers to the same position numbers using MANUAL SEARCH and SKIP functions.

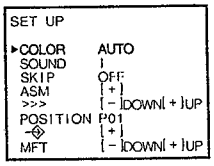
To preset channels (Manual search)



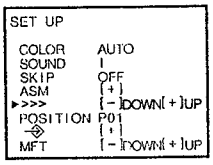
Manual search (>>>)

1 Select a desired position number to preset with the ▼/▲ or direct select buttons.

2 Press the MENU button repeatedly to call up the SET UP menu on the screen.

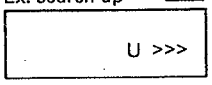


3 Press the ▼/▲ buttons to move the cursor (▶) to ">>>".

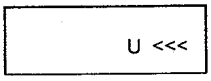


4 Press the ◿ −/+ buttons to start searching. The ◿ − button searches for lower-numbered channels; the ◿ + button for higher-numbered channels. Repeat this process until you can get the desired channel.

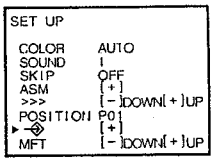
Ex. search up



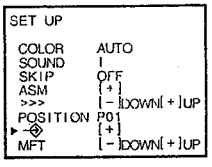
Ex. search down



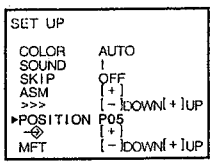
5 When the desired programme is shown, press the ▼/▲ buttons to move the cursor (▶) to "⇳".



6 Press the ◿ + button to memorize the channel at the current position.



7 When you desire to store another channel at another position, move the cursor (▶) to "POSITION" with the ▼/▲ buttons and select a desired position with the ◿ −/+ buttons. Then, press the ▼/▲ buttons to move the cursor (▶) to ">>>" and repeat the steps 4 to 6. Or, repeat the steps 1 to 7 after the display disapears.

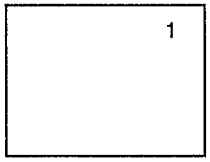


MFT (Manual Fine Tuning) and To skip unnecessary position numbers

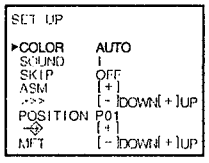
MFT (Manual Fine Tuning)

The adjustments below are not necessary under normal conditions. However, in areas of inferior broadcast conditions where adjustment is necessary for a best picture, adjust the tuning with theMFT (Manual Fine Tuning.)

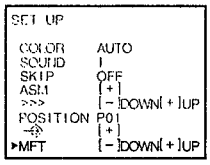
1 Select the position number you want to fine-tune with the ▼/▲ buttons or direct select buttons.



2 Press the MENU button repeatedly to call up the SET UP menu on the screen.



3 Press the ▼/▲ buttons to move the cursor (▶) to "MFT".



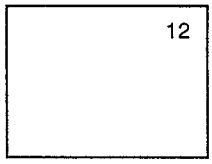
4 Press the ◿ –/+ buttons until the best possible picture and sound are obtained.

[–]DOWN or [+]UP is highlighted while tuning in.

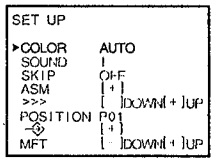
To skip a position number

After presetting the channels, you may skip unnecessary position numbers so that only the channels you want to watch are selected.

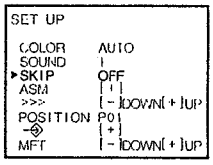
1 Select the positon number to be skipped with the ▼/▲ buttons or direct select buttons.



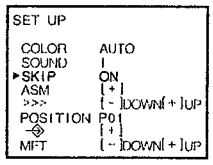
2 Press the MENU button repeatedly to call up the SET UP menu on the screen.



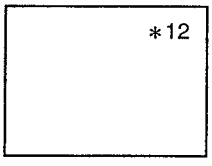
3 Press the ▼/▲ buttons to move the cursor (▶) to "SKIP".



4 Press the ◿ –/+ buttons to select "SKIP ON".



5 Press the CALL button to turn off the SET UP menu display.
Select the position number to be skipped with the direct select buttons. The * mark appears to the left of the position number. The position number will then be skipped when you select the position number with the ▼/▲ buttons.



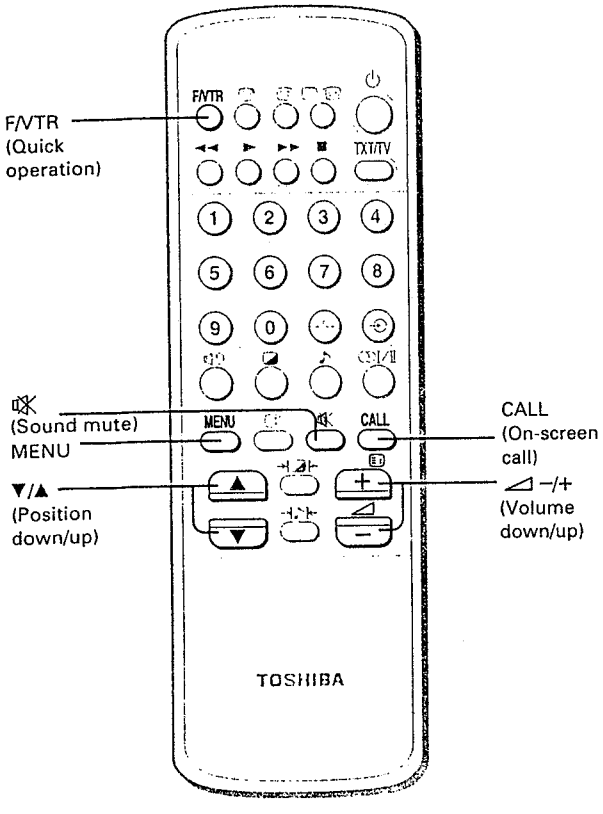
To restore a skipped position number

1 Select the position number you want to restore with the direct select buttons.
2 Press the MENU button to call up the SET UP menu display and press the ▼/▲ buttons to move the cursor (▶) to "SKIP".
3 Press the ◿ –/+ buttons to select "SKIP OFF".

Convenient Picture and Sound Controls

- The following describes how to operate using mainly the Remote Controller. You can also perform this operation using the MENU button on the TV set. See page 8.

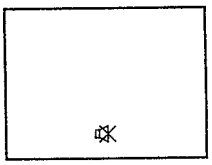
Sound muting and on-screen calling



To mute the sound

The muting function is convenient when you need to pay attention to surrounding sounds, answer a phone call, receive a visitor, etc.

1 Press the 🔇 button.
The 🔇 mark appears on the screen.



2 To restore the sound, press the 🔇 button again.

To retain the on-screen display

Generally, the position number and the ⊂⊃ (Stereo) or I/II (bilingual) reception indicator will disappear within 5 seconds once the position number has been changed.

1 To retain the position number on the screen, press the CALL button.

2 To return to the automatic-disappearing mode, press the CALL button again.

To turn off the menu function display instantly

Generally, the menu function display (FUNCTION, LANGUAGE, SET UP) is retained for 15 seconds by pressing the MENU button once.
To turn off the display instantly, press the CALL button.

To select the position number rapidly

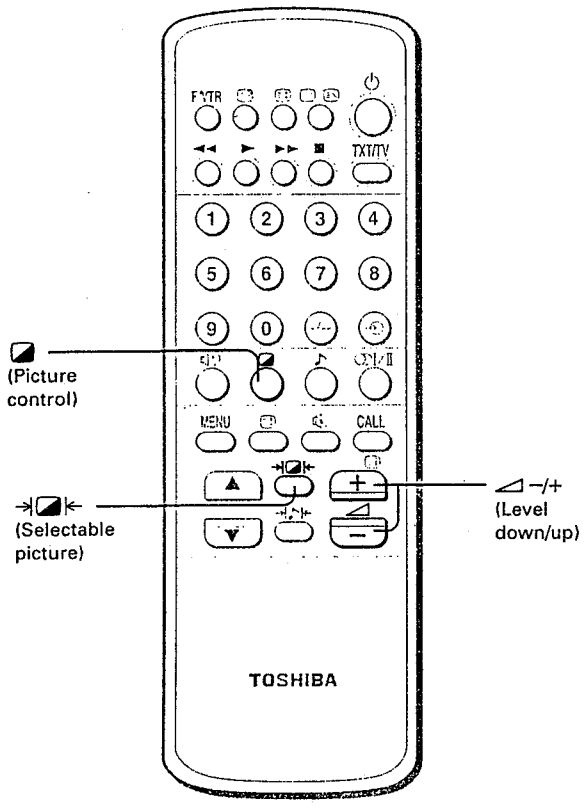
When you select a position number, press the F/VTR button and the ▼ or ▲ button simultaneously. The position number decreases or increases by 10.

To change the volume rapidly

When you adjust the volume, press the F/VTR button and the ◿ – or + button simultaneously. The volume changes rapidly.

Selectable picture

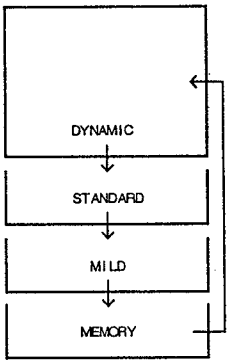
You can select the picture quality instantly among three preset modes and one user-set mode.



To select the picture mode

Press the ⇥◪⇤ button to select the desired picture quality.

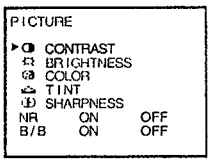
DYNAMIC, STANDARD, MILD and MEMORY (user-set) can be selected cyclically.



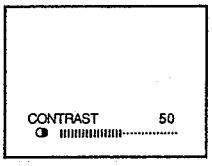
Mode	Picture quality
DYNAMIC	bright and dynamic picture
STANDARD	standard picture
MILD	soft and moody picture
MEMORY	the picture quality you set

To set the desired picture quality to the MEMORY position

1 Press the ◪ button. The picture control menu appears.



2 Press the ◪ button repeatedly to move the cursor (▶) to the desired adjusting item, and press the ◿ –/+ buttons to adjust the level.



Item		Pressing	
		◿ –	◿ +
◑	CONTRAST	weaker	stronger
☼	BRIGHTNESS	darker	lighter
◍	COLOR	paler	deeper
◿	TINT *	purplish	greenish
◧	SHARPNESS	softer	sharper

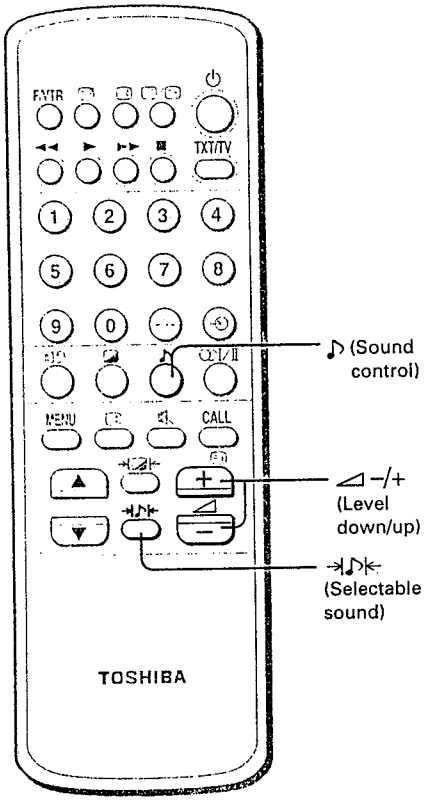
* for NTSC only

The adjusted level is stored in the MEMORY position.

Convenient Picture and Sound Controls (continued)

Selectable sound

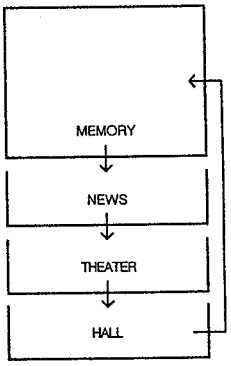
You can select the sound quality instantly among three preset modes and one user-set mode.



To select the sound mode

Press the button to select the desired sound quality.

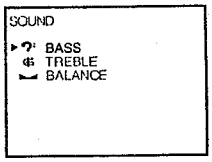
MEMORY (user-set), NEWS, THEATER and HALL can be selected cyclically.



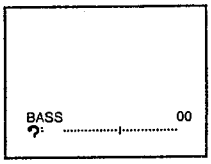
Mode	Sound quality
MEMORY	the sound quality you set
NEWS	news/dialogue
THEATER	a movie theater filed with a dynamic sound
HALL	a concert hall filled with a rich warm sound

To set the desired sound quality to the MEMORY position

1 Press the ♪ button. The sound control menu appears.



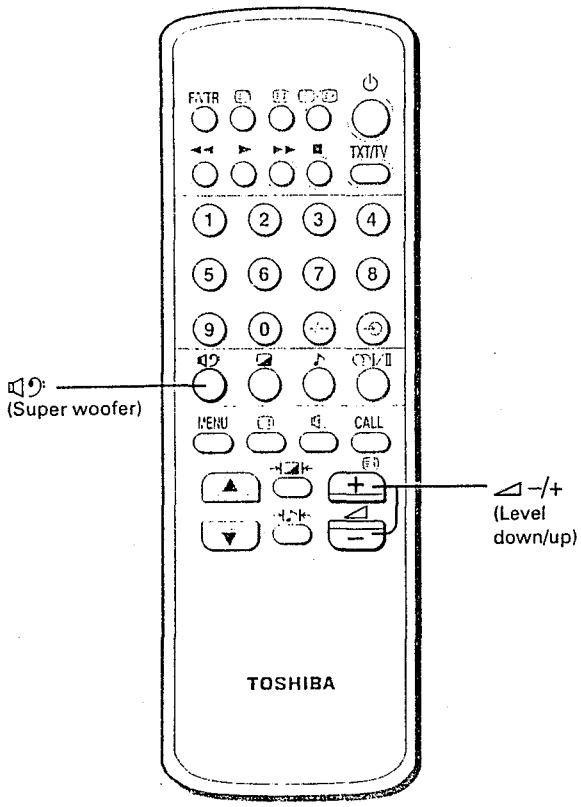
2 Press the ♪ button repeatedly to move the cursor (▶) to the desired adjusting item, and press the ◿ −/+ buttons to adjust the level.



Item		Pressing	
		◿ −	◿ +
	BASS	weaker	stronger
	TREBLE	weaker	stronger
	BALANCE	decreases the right channel	decreases the left channel

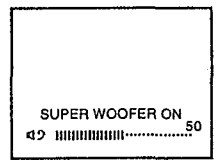
The adjusted level is stored in the MEMORY position.

To select the sound effect

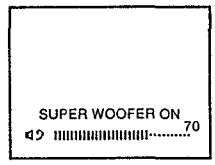


To use the super woofer

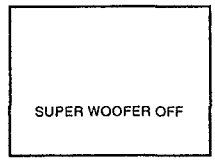
1 Press the button repeatedly until SUPER WOOFER ON is displayed.



2 While the SUPER WOOFER ON is displayed on the screen, adjust the super woofer level using the −/+ buttons.



3 To turn off the super woofer, press the button to display SUPER WOOFER OFF.



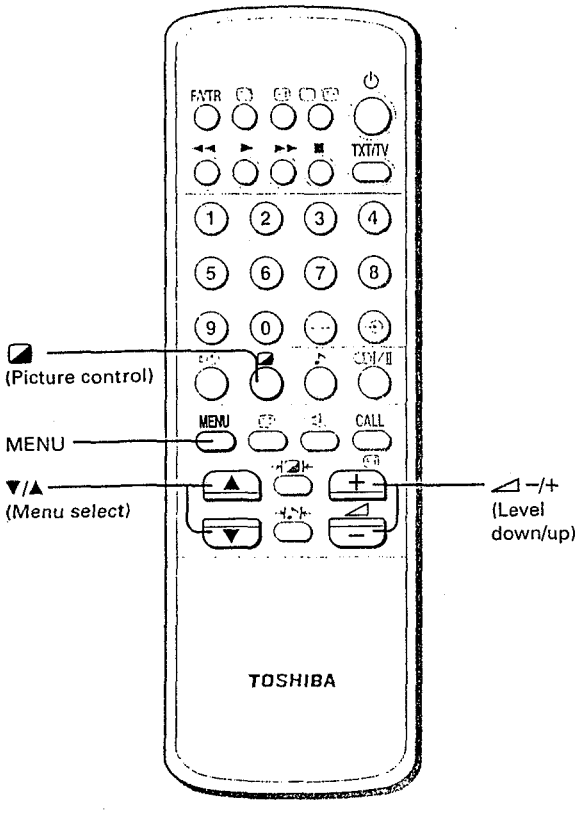
Note

The selected ON or OFF mode and the adjusted level are stored in the MEMORY position of the selected sound mode.

Using Other Menus

- The following describes how to operate using mainly the Remote Controller.
  You can also perform this operation using the MENU button on the TV set. See page 8.

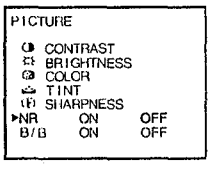
Picture noise reduction and blue background



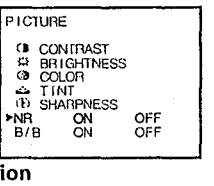
To reduce the picture noise

If the signal being received is weak and the picture is blurry, activate the noise reducer to improve the picture.

1 Press the ◪ button repeatedly or press the ▼/▲ buttons to move the cursor (▶) to "NR".



2 Press the ◿ −/+ buttons to select "ON".



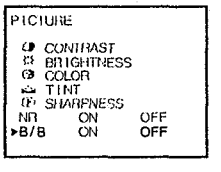
To turn off the picture noise reduction

Repeat steps1 and 2 and select NR OFF.

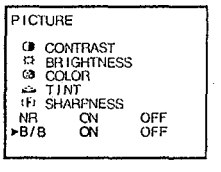
To turn the screen blue

With the blue background function ON, the TV will automatically turn blue when no signal is being received.

1 Press the ◪ button repeatedly or press the ▼/▲ buttons to move the cursor (▶) to "B/B".



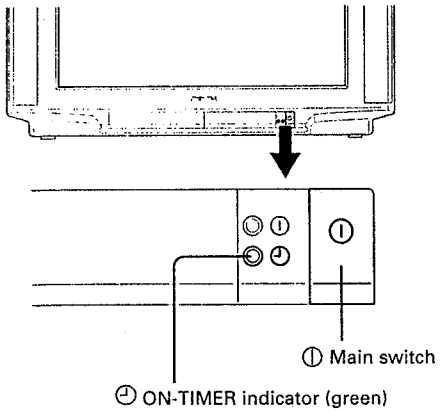
2 Press the ◿ −/+ to select "ON".

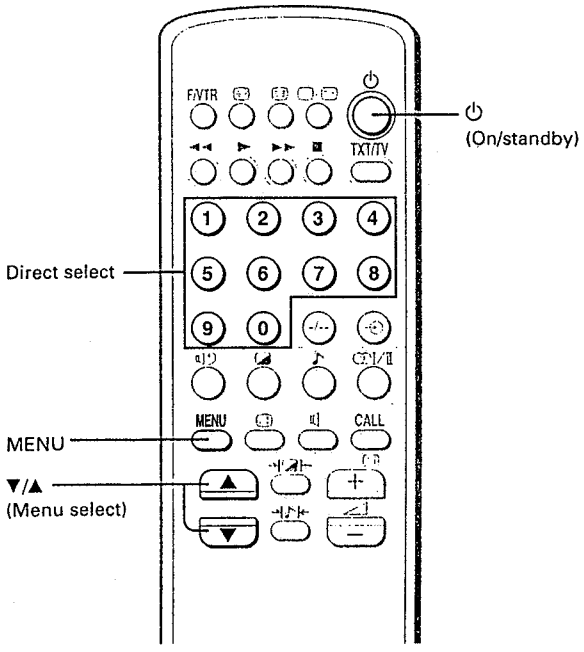


To turn off the blue background

Repeat steps 1 and 2 above and select B/B OFF.

ON/OFF timer





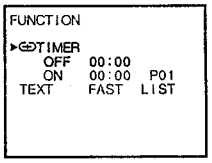
If you enter an incorrect number while setting the ON/OFF timer
Re-enter the time with the direct select buttons.

Note
The maximum presettable time for the ON/OFF timer is 12:59.

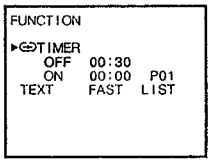
To turn off the TV automatically (OFF timer)

With the OFF timer, the TV will automatically switch to standby mode at a preset time.

1 Press the MENU button repeatedly to call up the FUNCTION menu on the screen. Press the ▼/▲ buttons to select OFF (OFF timer).



2 Press the direct select buttons to set after how many hours and minutes you want the TV to switch into the standby mode.



Ex. 30 minutes:
Press 0, 0, 3 and 0.
Once the preset time has elapsed, the TV will automatically go into standby mode.

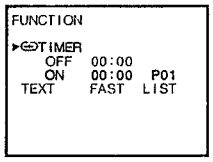
To cancel the OFF timer

Press the ⏻ button twice (to turn off the TV once and turn it on again) or in step 2 above set the OFF time to 00:00.

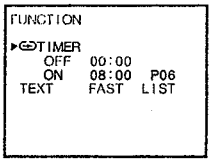
To turn on the TV automatically (ON timer)

With the ON timer, the TV will automatically turn on to a preset channel at a preset time.

1 Press the MENU button repeatedly to call up the FUNCTION menu on the screen. Press the ▼/▲ buttons to select ON (ON timer).



2 Press the direct select buttons to set the TV ON time and position number. The colour of the 🕘 ON-TIMER indicator will change from red to green.



Ex. 8 hours, position number 6:
Press 0, 8, 0, 0, 0 and 6.

3 Press the ⏻ button to switch the TV to standby mode. At the preset time, the TV will turn on automatically.

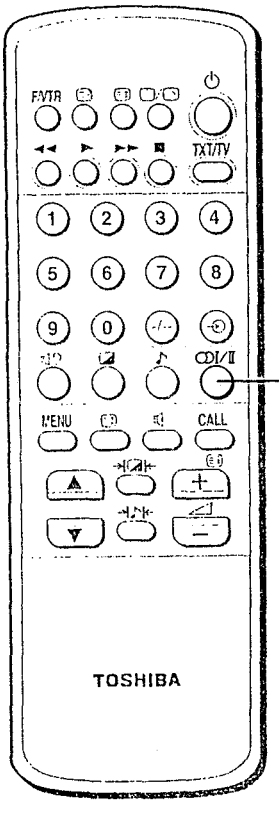
To cancel the ON timer

Push the main switch to turn off the TV or in step 2 above set the ON time and position number to 00:00 P00.

Enjoying Stereo and Bilingual Broadcasts

- The unit receives both stereo and bilingual broadcasts transmitted in either the NICAM (I, B/G) or German (B/G) stereo/bilingual broadcast system.

To select the stereo/bilingual mode

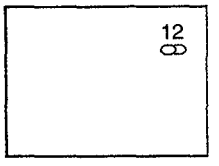


CD I/II (Stereo/ bilingual select)

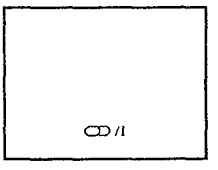
If stereo sound is noisy
If a broadcasting signal is not strong enough and noise-free stereo sound is not available, press the CD I/II button until the ▽ indicator appears on the screen (monaural mode). The noise should be reduced.

Stereo programmes

1 When a stereo programme is received, CD appears.



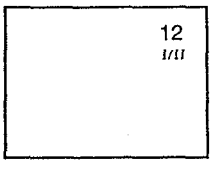
2 Press the CD I/II button to select the stereo/monaural mode. CD/I, CD/II and ▽ appear cyclically on the screen.



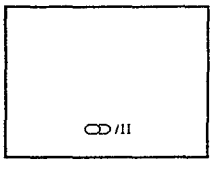
Display	Reception mode
CD/I	Stereo
CD/II	Stereo
▽	Monaural

Bilingual programmes

1 When a bilingual programme is received, I / II appears.



2 Press the CD I/II button to select the sound to be heard. The sound differs according to the transmission system: NICAM or German stereo/ bilingual broadcast. CD/I, CD/II and ▽ appear cyclically on the screen.

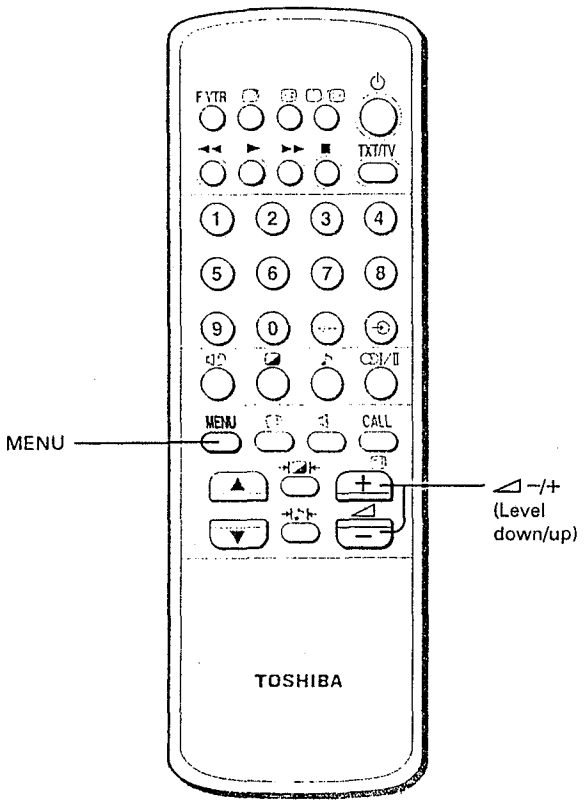


Display	Sound to be heard	
	NICAM	German stereo/ bilingual broadcast
CD/I	Sub I sound	Main sound
CD/II	Sub II sound	Sub sound
▽	Main sound	Main sound

Selecting the Language for the OSD (On-Screen Display)

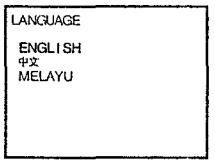
To select the language for the OSD

Use this function to switch the language for the OSD to either English, Mandarin or Malayan.

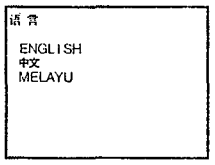


To select the language for the OSD

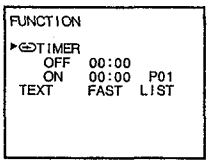
1 Press the MENU button repeatedly to call up the LANGUAGE selection menu on the screen.



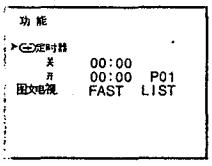
2 Press the ◿ −/+ buttons to select the desired language. The selected language is displayed in magenta and the screen menu is automatically displayed in that language.



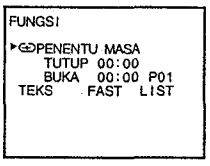
Ex. English display



Ex. Mandarin display



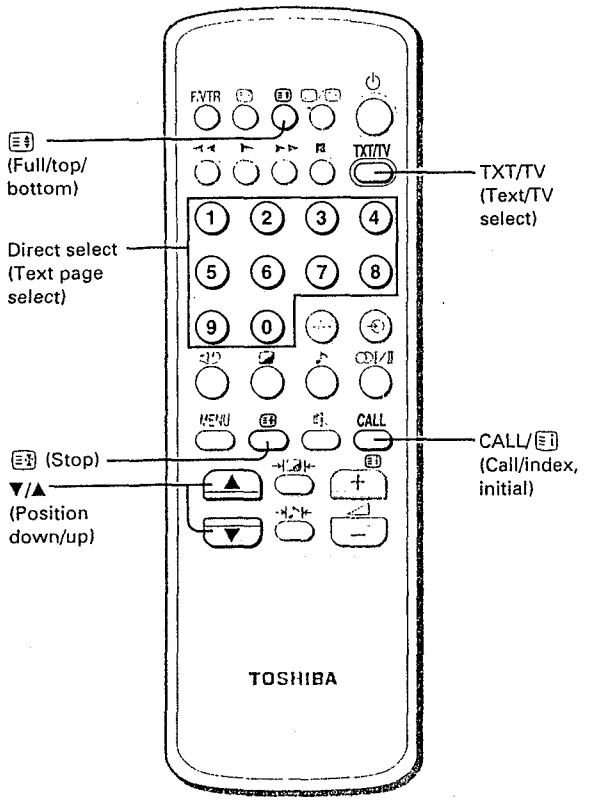
Ex. Malayan display



Viewing Normal Text/ Using the Teletext Buttons

- The TV is capable of showing both normal text and Fastext information on the screen. The Teletext buttons on the remote control have the same function for both.

To view normal text



To display a page of text

1 Select a TV station with the text service desired.

2 Press the TXT/TV button.
The index page will appear.

3 Enter the 3-digit page number using the direct select buttons.
Ex. Page 10: Press 0, 1 and 0.

To superimpose the text on a TV picture ( )

Press the TXT/TV button again.

To return to the normal TV mode ( )

Press the TXT/TV button repeatedly until the text disappears.

To display an index/initial page ( )

Press the button if no page number is displayed. The index page (FAST mode) or the preset initial page (LIST mode) will appear. Press again to turn off the page display.
For presetting an initial page, see page 25.

To go to the previous or next page (▼/▲)

Press the ▼ button to switch to the previous page. Press the ▲ button to switch to the next page. The pages will cyclically change from P*00 to P*99.

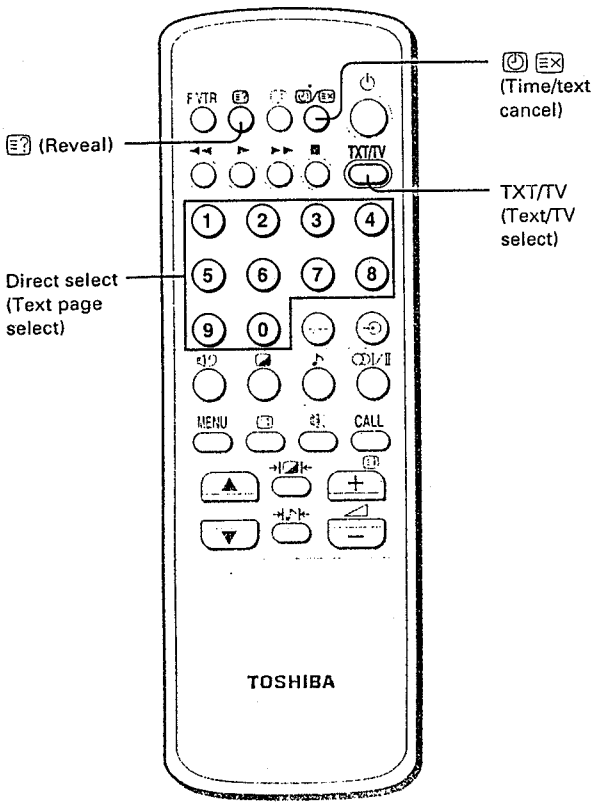
To enlarge the text display size ( )

Press the button once to enlarge the top half of the page. Press again to enlarge the bottom half of the page, and again to return to the normal size.

To stop a page of text ( )

When a page is divided into sub pages, it is convenient to stop a given page.
Press the button to stop the page. STOP will appear in the top left of the screen. Press again to release the stop mode.

To view normal text (continued)



To select a page while viewing a normal TV picture (/)

If you press the / button in the text mode, a normal TV picture will be displayed. Enter the desired 3-digit page number using the direct select buttons, and the selected number will appear on the screen.
To view the selected page, press the TXT/TV button.

To display news flashes (/)

To view news flashes when they are broadcast, select the news flash page for the particular Teletext service (see the Teletext index page) and press the / button. The news flashes will be displayed as they are broadcast. Press again to cancel the news flash display.

Note
The TV channel cannot be changed when the news flash is displayed. To change the channel, first press the TXT/TV button to cancel the text mode.

To reveal concealed text ( )

Some pages have sections that are concealed such as the answers to quizzes and the punchlines of jokes. To see the concealed part, press the button. Press again to conceal.

To display the time (/)

To display the accurate time on the screen while watching a normal TV picture, press the / button. Press again to turn off the time display.

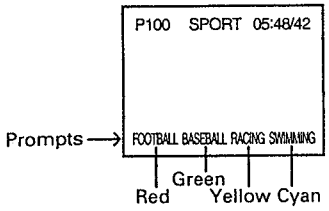
VIEWING TELETEXT (3350DE only)

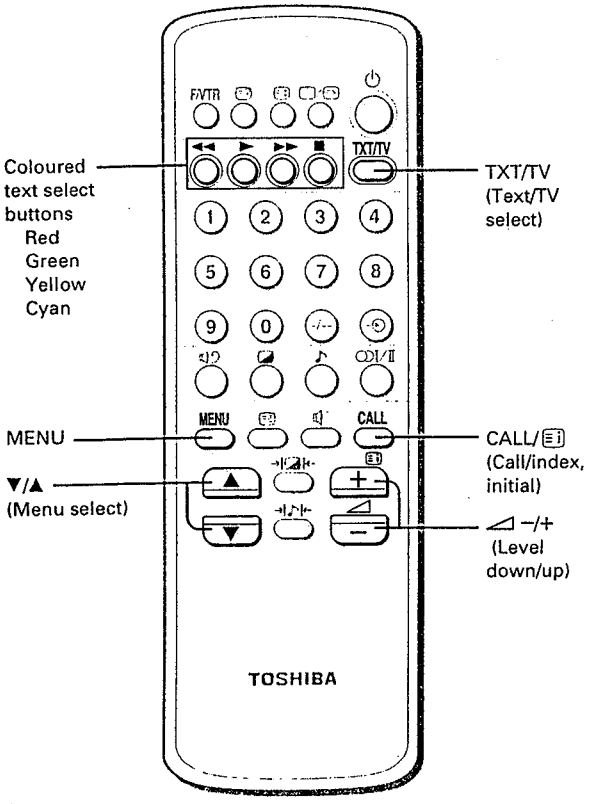
Viewing Fastext

- Fastext is a method of viewing Teletext pages by related subjects grouped by the broadcast studio. You can access any given topic shown on the screen simply by pressing the corresponding coloured text select button on the remote control.

To view Fastext

When you select the FAST mode, four coloured prompts will appear at the bottom of the screen. The colours correspond to those of the text select buttons on the remote control. So, press the corresponding coloured text select button to go to the desired topic page instantly.

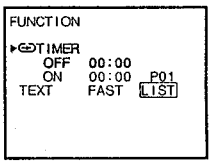




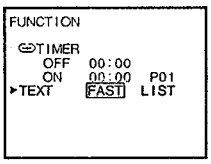
To select the FAST mode

1 Select a TV station with the desired FASTEXT service.

2 Press the MENU button repeatedly to call up the FUNCTION menu on the right.

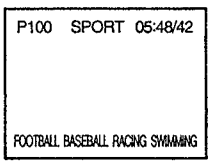


3 Press the ▼/▲ buttons to move the cursor (▶) to "TEXT".
Then, press the -/+ buttons to select "FAST" (Fastext mode).

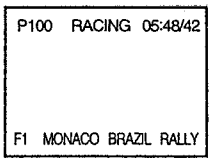


To view Fastext

1 Press the TXT/TV button to select the text mode.
Four coloured prompts will appear at the bottom of the screen.



2 Press the text select button whose colour corresponds to your desired topic.
The screen will switch to the selected page.



3 Repeat step 2 to switch to the next topic you want to view.

To return to the normal TV mode

Press the TXT/TV button twice.

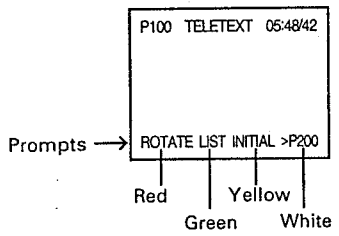
Press the button to display an index page.
(See page 22.)

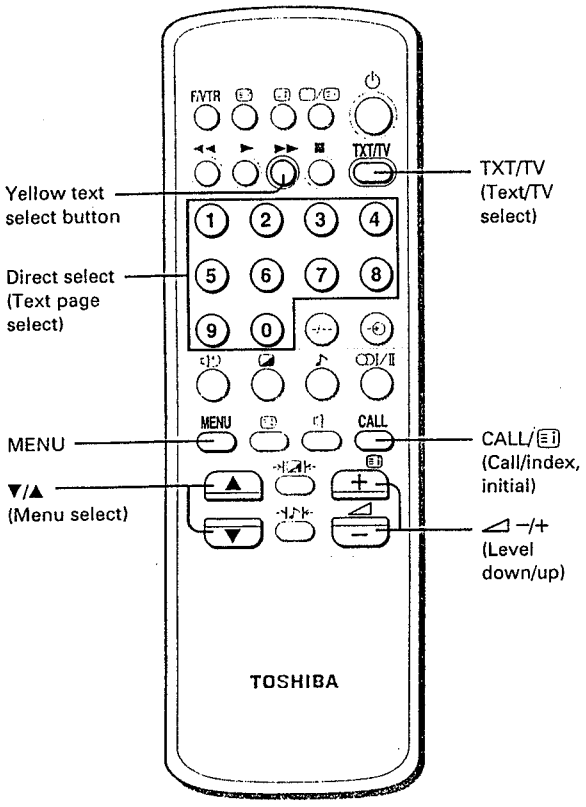
Viewing Preset Text Pages in the LIST Mode

- You can preset up to four of the most frequently used text pages and select these pages easily. In addition to the four pages, you can preset an initial page which will appear first each time you select the text mode.

To preset and view the text pages in the LIST mode

Presetting is possible only for position numbers 1 through 9.

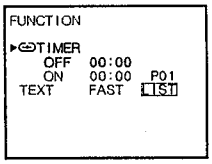




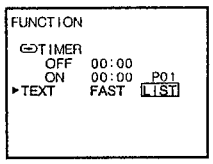
To select the LIST mode

1 Select a TV station with the TEXT in the desired LIST mode service.

2 Press the MENU button repeatedly to call up the FUNCTION menu on the right.

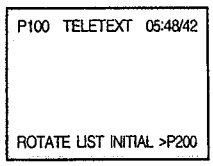


3 Press the ▼/▲ buttons to move the cursor (▶) to "TEXT".
Then, press the −/+ buttons to select "LIST" (LIST mode).

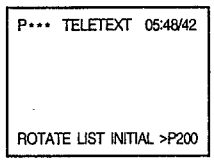


To preset an initial page

1 Press the TXT/TV button to select the text mode.
The display on the right will appear.

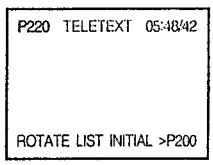


2 Press the **yellow** text select button.
P*** in red will appear on the screen.



3 Press the direct select buttons to enter the 3-digit page number that you want to preset as an initial page.
Ex. page 220 : Press 2, 2 and 0.

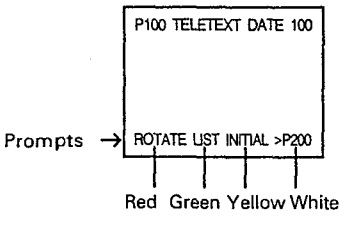
The selected page will turn to white and will be stored in memory.

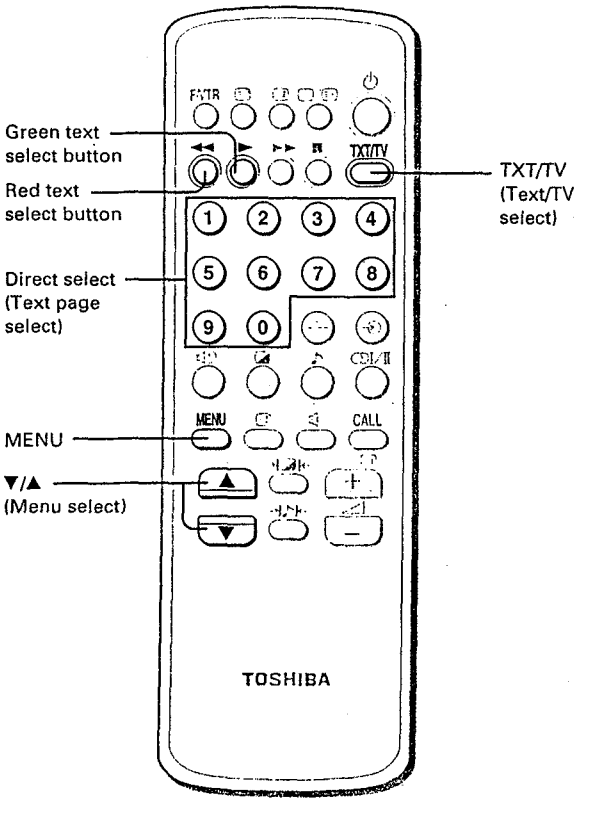


Note
For position numbers 10 and higher, the initial page is fixed to 100, and the LIST function does not operate.
Press the button to display an initial page. (See page 22.)

Viewing Preset Text Pages in the LIST Mode (continued)

To preset and view the text pages in the LIST mode (continued)





To preset desired pages

1 Press the **green** text select button.

The page number at the right bottom will turn to purple.

P100 TELETEXT 05:48/42
ROTATE LIST INITIAL >P200

2 *Enter* the 3-digit page number you want to preset by using the direct select buttons, and press the **green** text select button. The selected page will be stored in memory.

P100 TELETEXT 05:48/42
ROTATE LIST INITIAL >P220

3 Repeat steps 1 and 2 to preset other three pages.

To view the preset pages

Press the **red** text select button.

By pressing the red text select button, the preset pages will appear cyclically.

P100 TELETEXT 05:48/42
ROTATE LIST INITIAL >P220

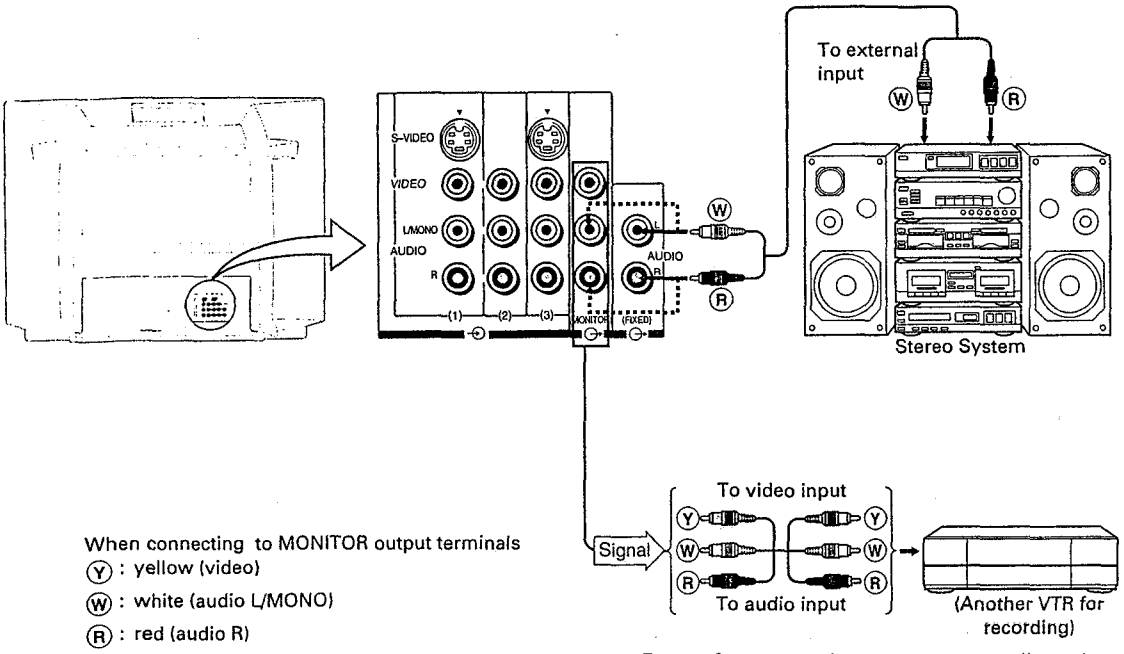
Note
For position numbers 10 and higher, pages 100, 200, 300 and 400 are always selected in the LIST mode. You cannot change the presetting.

External Equipment Connections

- The following describes how to use and connect the TV with other AV equipments. Refer to the owner's manual of the equipment to be connected as well.

To connect video and audio equipment

You can connect a stereo system to the MONITOR and FIXED AUDIO output terminals (phono type) on the TV to enjoy a high-quality sound from the stereo system. The MONITOR output terminals output the video and audio signals being monitored on the TV. The output audio signal level is fixed.



When connecting to MONITOR output terminals
Ⓨ : yellow (video)
Ⓦ : white (audio L/MONO)
Ⓡ : red (audio R)

When connecting to AUDIO output terminals
Ⓦ : white (audio L)
Ⓡ : red (audio R)

* Except for personal use, you are not allowed to use video or sound you have recorded without consent of the owner of copyright according to the Copyright Law.

Note:
The TELETEXT signal cannot be output from the MONITOR (VIDEO) output terminal. **(Teletext is featured only for 3350DE.)**

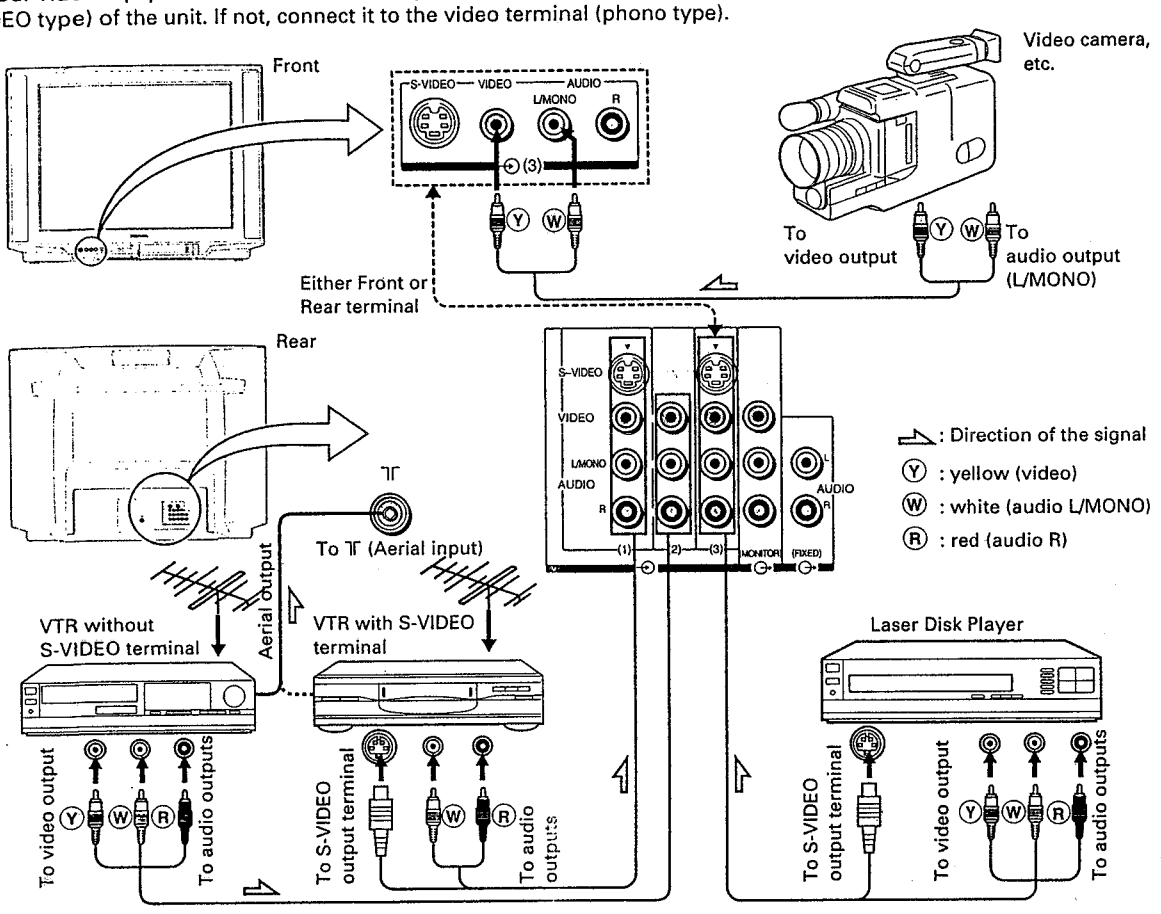
CONNECTING OTHER EQUIPMENTS

External Equipment Connections (continued)

To connect video and audio equipments

You can connect video equipments such as a VTR and video camera to this TV and enjoy the high quality picture.

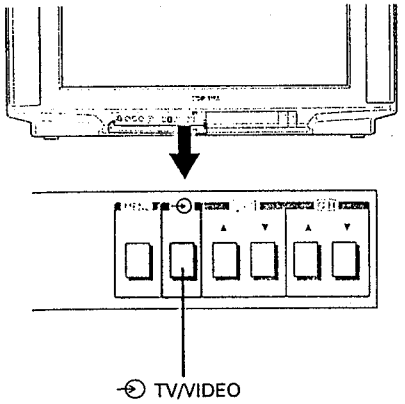
If your video equipment has an S-VIDEO output aerial, connect it to the S-VIDEO input terminal (special S-VIDEO type) of the unit. If not, connect it to the video terminal (phono type).

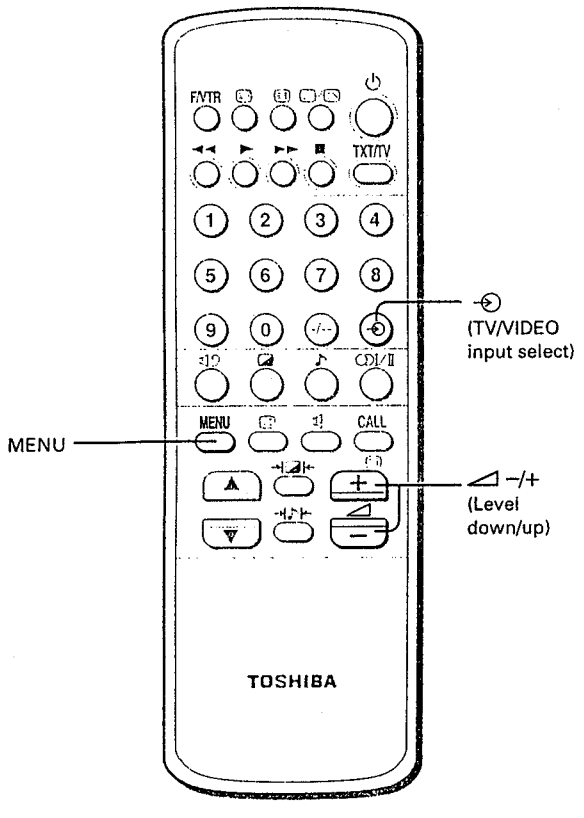


Note

When you operate a Toshiba video recorder, you can also perform basic operations using this model's remote controller. See page 7.

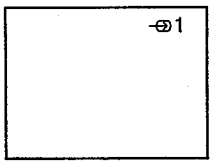
To connect video and audio equipments





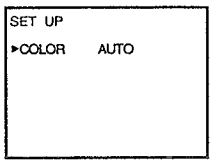
To select the input

Press the ⊖ button on the TV set or the remote control repeatedly until you see the appropriate input indicator on the screen; ⊖ 1 (⊖ (1), video 1 input), ⊖ 2 (⊖ (2), video 2 input), ⊖ 3 (⊖ (3), video 3 input) and the position number appear in sequence. To return to aerial input, press the ⊖ button to display a TV picture with a position number.



If the colour of video input is abnormal

The colour system setting may be incorrect. Press the MENU button repeatedly to display the menu on the right. Confirm that "COLOR" is set to "AUTO". If not, select "AUTO" with the ◿ –/+ buttons.



Note on the S-VIDEO terminal
Connect either the S-VIDEO input terminal or VIDEO input terminal, whichever terminal is used. Do not connect both of these terminals.

Note on the video 3 VIDEO terminals
Connect the video 3 VIDEO terminals (S-VIDEO, VIDEO, AUDIO L/MONO and AUDIO R) either on the front or on the rear.

A Guide to Simple Problem Solving

- Before calling service personnel, please check the following chart for a possible cause to the trouble you are experiencing.

Symptom	Check these things
Power is not turned on.	• Be sure the power cord is plugged in.
No sound	• Headphones may be plugged in.
Poor colour/tint	• May be the misadjustment for contrast, colour and tint. • If you change the direction of the TV while the TV is activated, the picture may suffer from colour shading. If so, turn off the TV and allow for about 30 minutes to cool, then turn on the TV again. The picture should improve.
Spots appear on the screen.	• May be jamming from cars, motorcycles, electric trains, high tension lines, neon signs, hair dryers, etc.
Lines appear on the screen.	• May be jamming from other TV receivers, personal computers, and TV games, as well as interference from radio station.
Double or triple images	• May be due to broadcast waves reflected from mountains or buildings. • Check if the direction of the aerial has changed because of strong wind, etc.
Snowy picture	• The aerial lead-in may be broken or disconnected. • Check if the direction of the aerial has changed.
Remote control does not work.	• The batteries in the remote control may be exhausted. • The batteries may be improperly installed.

The following are not failures

The cabinet clicks.	• The clicking is a creaking sound produced when the cabinet expands or contracts due to changes in the temperature. This will not affect the picture or sound.
Unevenness in colour sometimes develops in part of the screen.	• If the screen is set brightly, such unevenness in colour may occur depending upon the nature of the picture. The proper colour can be restored by reducing the contrast. Consult your local dealer.

Broadcast Transmission Systems in Each Country

Area	Country	System	
		Colour	Sound
Asia M. E.	Bahrain, Kuwait, Israel, Oman, Qatar, United Arab Emirates, Yemen, etc. Indonesia, Malaysia, Singapore, Thailand, etc.	PAL	B/G
	China	PAL	D/K
	Hong Kong	PAL	I
	Iraq, Islamic Republic of Iran, Lebanon, Saudi Arabia, etc.	SECAM	B/G
	Russian Federation, etc.	SECAM	D/K
	Myanmar, etc.	NTSC	M
Oceania	Australia, New Zealand, etc.	PAL	B/G
Africa	Republic of South Africa, etc.	PAL	I
South America	Argentina, Paraguay, Uruguay, etc.	PAL	N
	Brazil	PAL	M
	Chile, Colombia, etc.	NTSC	M

Notes: • "B/G" and "D/K" will be displayed as "BG" and "DK" on the screen.
PAL, SECAM and 358NTSC are different colour signal broadcast transmission systems applicable to different countries. 443NTSC is used in special VTRs to playback NTSC recorded video tapes through PAL television equipment.
[358NTSC = NTSC 3.58 MHz, 443NTSC = NTSC 4.43 MHz]
• Refer to the Specifications table on the next page to find the receivable television systems for this TV.

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION","SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

INSTALLATION AND SERVICE ADJUSTMENTS

GENERAL INFORMATIONS

All adjustments are thoroughly checked and corrected when the receiver leaves the factory. Therefore the receiver should operate normally and produce proper colour and B/W pictures upon installation. However, several minor adjustments may be required depending on the particular location in which the receiver is operated.

This receiver is shipped completely in cardboard carton. Carefully draw out the receiver from the carton and remove all packing materials. Plug the power cord into a convenient 220 volts 50 Hz AC two pin power outlet. Turn the receiver ON. Check and adjust all the customer controls such as BRIGHTNESS, CONTRAST and COLOUR Controls to obtain natural colour or B/W picture.

AUTOMATIC DEGAUSSING

A degaussing coil is mounted around the picture tube so that external degaussing after moving the receiver is normally unnecessary, providing the receiver is properly degaussed upon installation. The degaussing coil operates for about 1 second after the power to the receiver is switched ON. If the set is moved or faced in a different direction, the power switch must be switched off at least 30 minutes in order that the automatic degaussing circuit operates properly. Should the chassis or parts of the cabinet become magnetized to cause poor colour purity, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube, the sides and front of the receiver and slowly withdraw the coil to a distance of about 2 m before disconnecting it from AC source. If colour shading still persists, perform the COLOUR PURITY ADJUSTMENT and CONVERGENCE ADJUSTMENTNS procedures.

HIGH VOLTAGE CHECK

CAUTION : There is no HIGH VOLTAGE ADJUSTMENT on this chassis.

1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST Controls to minimum (zero beam current).
3. High voltage will be measured below 33.0 kV.
4. Rotate the BRIGHTNESS Control to both extremes to be sure the high voltage does not exceed the limit of 33.0 kV under any conditions.

HEIGHT ADJUSTMENT

Receive the UK PHILIPS pattern, and set the contrast to max, colour and brightness to centre (See page 35).

HORIZONTAL CENTRE ADJUSTMENT

1. Receive the UK PHILIPS pattern.
2. Adjust HPOS(Bus control) so the pattern centre can be located at the screen centre.

FOCUS ADJUSTMENT

Adjust FOCUS Control on FLYBACK TRANS.(T461) for well defined scanning lines in the centre area on the screen.

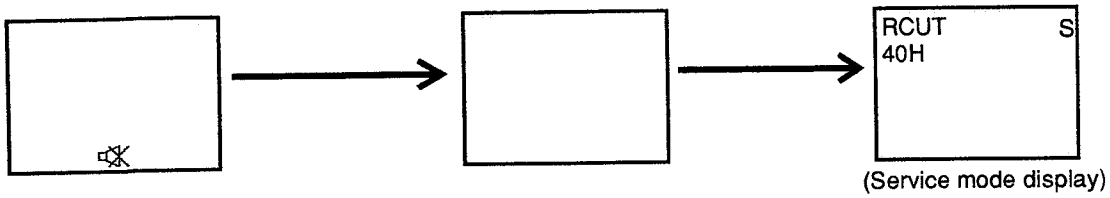
SERVICE MODE

1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.

2) Press 🔇 button again to keep pressing.

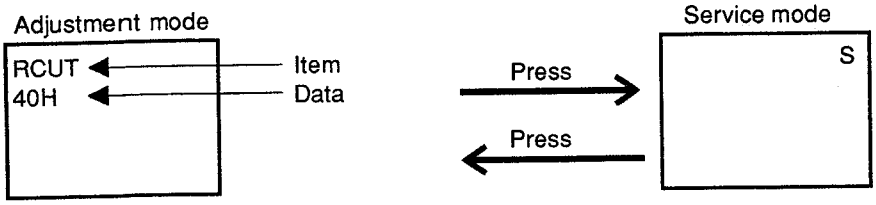
3) Keep pressing the 🔇 button, press MENU button on TV set.



(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

Press MENU button on TV.



3. SELECTING THE ADJUSTING ITEMS

Every pressing of CHANNEL ▲button changes the adjustment items in the following order. (▼button for reverse order.)

4. ADJUSTING THE DATA

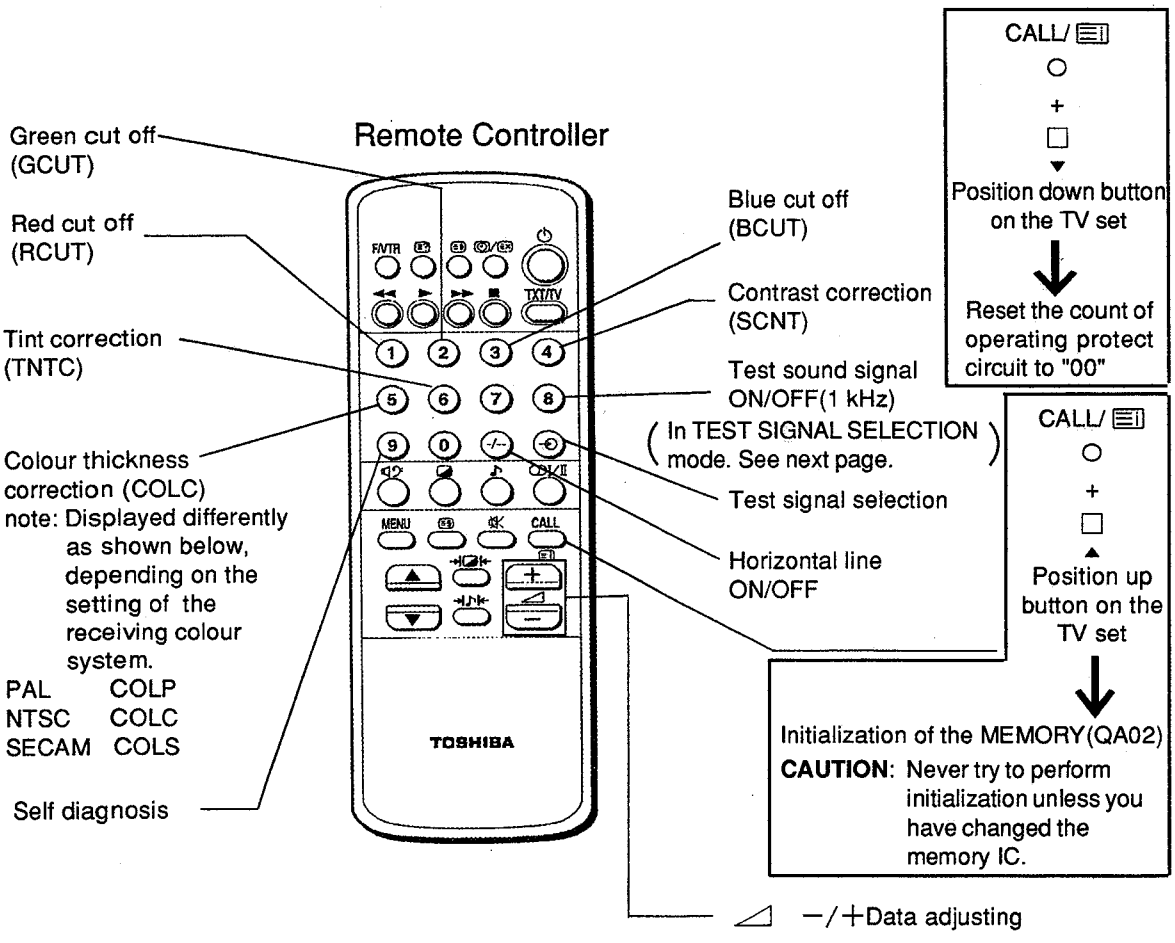
Pressing of VOLUME ▲or ▼button will change the value of data in the range from 00 to FF. The variable range depends on the adjusting item.

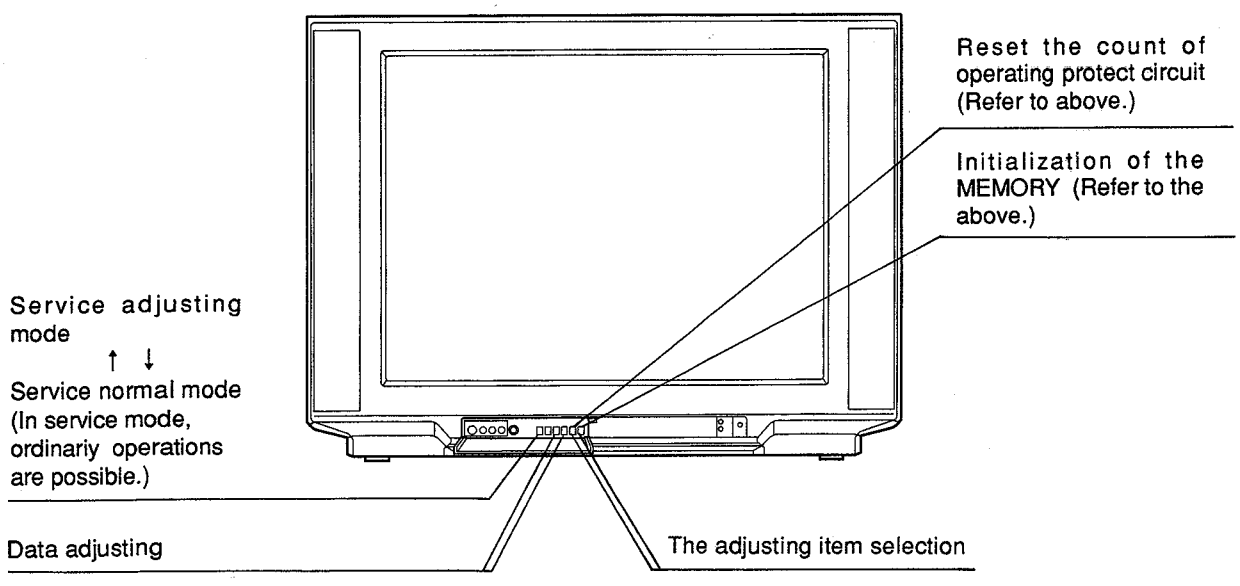
5. EXIT FROM SERVICE MODE

Press POWER button to turn off the TV once.

OTHER SERVICE FUNCTION

The following key entry during display of adjustment menu provides special functions.



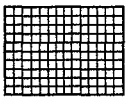
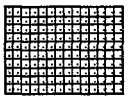

Reset the count of operating protect circuit (Refer to above.)
Initialization of the MEMORY (Refer to the above.)
Service adjusting mode
↑ ↓
Service normal mode
(In service mode, ordinariy operations are possible.)
Data adjusting
The adjusting item selection

TEST SIGNAL SELECTION

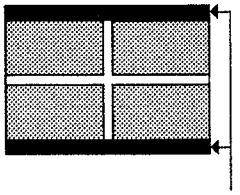
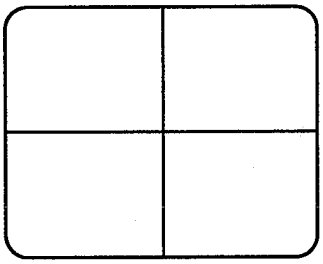
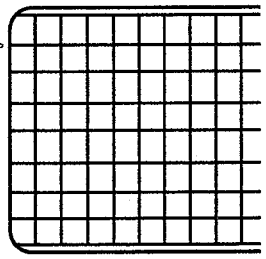
Every pressing of ⊕ button change the test patterns on screen as described below in SERVICE MODE.

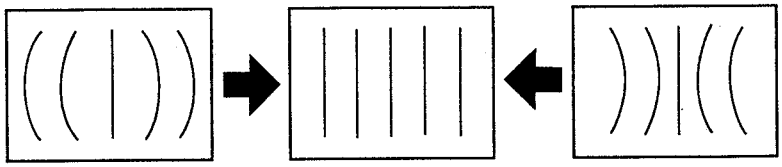
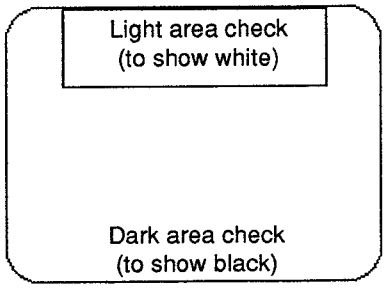
Signal off ⟶ NTSC signals (14 patterns)
↑ PAL signals (14 patterns) ⟵

● About inside signal: The inside signal is output at video input terminal from QA01, and is not output with the pin inserted into terminal. (Single colour signal can be output.)

Signals	Picture	Using method
·Red single colour ·Green single colour ·Blue single colour ·Black single colour ·White single colour		Purity and White uniformity of CRT Red single colour. . . . Stopping G and B output of Q501 Green single colour. . . . Stopping R and B output of Q501 Blue single colour. . . . Stopping R and G output of Q501 Black single colour. . . . Making black signal of approx. 1V(p-p) in QA01 White single colour. . . . Making white signal of approx. 1V(p-p) in QA01
·W/B adjustment		White balance adjustment White part. . . . White balance adjustment/check in light area Black part. . . . White balance adjustment/check in dark area ※Making approx. 1V(p-p) signal in QA01.
·Black cross-bar ·White cross-bar		Picture position (horizontal, vertical and slant) in CRT adjustment ※Making approx. 1V(p-p) signal in QA01.
·Black cross-hatch ·White cross-hatch		Convergence and vertical amplitude adjustment ※Making approx. 1V(p-p) signal in QA01.
·Black cross-dot ·White cross-dot		Convergence adjustment ※Making approx. 1V(p-p) signal in QA01.
·H signal (Left, Right, White) ·H signal (Left, Right, Black)		For checking (of purity drift) of white uniformity of CRT H signal (Left, Right, White). . . . Check in light area H signal (Left, Right, Black). . . . Check in dark area The adjustment will be the best, if the time when unevenness of colour in light area occurs, is a little longer than that in dark area. ※Making approx. 1V(p-p) signal in QA01.

SERVICE MODE ADJUSTMENT

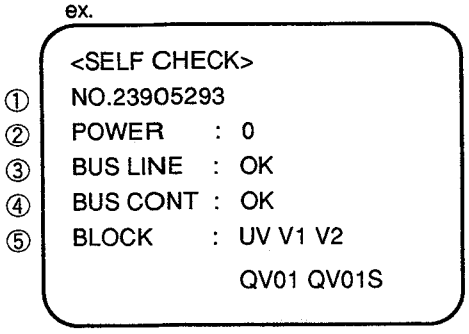
ITEM	ADJUSTMENT PROCEDURE
INITIALIZATION OF QA02 (MEMORY)	After replacing QA02, the following initialization is required. 1. Call up the adjustment mode display following the steps 1 and 2 on page 32. 2. Press the CALL button on the Remote Control and CHANNEL ▲buttons on the TV set simultaneously. The initialization of QA02 has been completed. 3. Check the picture carefully. If necessary, adjust any adjustment item. Perform "AUTOMATIC SEARCH MEMORY".
SUB-BRIGHTNESS (ITEM : BRTC) Note : Construct the picture height until the belt of vertical retrace line appears adjusting the address HIT(HEIGHT).	1. Set CONTRAST to "00", and BRIGHTNESS to "50" by adjusting user controls. 2. Set the TV in service mode to get white cross-bar of inside pattern. 3. Select BRTC (brightness correction), and adjust the ◿ −/+ button to reduce the value so that white portion of inside pattern slightly light. 4. Adjust ◿ −/+ button to increase the data value of BRTC, and set it just before the difference between the belt of vertical retrace and the border of black portion of inside pattern is visible. After that, return vertical height and contrast.  Belt of vertical retrace
HORIZONTAL POSITION ADJUSTMENT (HPOS) VERTICAL POSITION ADJUSTMENT (VPOS)	1. Set the TV in service mode, and get black or white cross-bar signal with VIDEO button on remote hand unit. 2. Select either HPOS (Horizontal picture phase) or VPOS (Vertical picture phase) with CHANNEL ▲, ▼buttons, and adjust horizontal or vertical picture position in the centre of screen with VOLUME ◿ −/+ buttons. 
VERTICAL AMPLITUDE ADJUSTMENT (HIT)	1. Set the TV in service mode, and get black or white cross-hatch signal with VIDEO button on remote hand unit. 2. Select HIT (Vertical amplitude) with CHANNEL ▲, ▼buttons, and adjust vertical amplitude with VOLUME ◿ −/+ buttons so that vertical amplitude lacks a little. 3. Adjust vertical amplitude with VOLUME ◿ −/+ buttons so that the first bar on cross- hatch signal touches edge of screen. The first ☞ 

ITEM	ADJUSTMENT PROCEDURE
WIDTH (WID)	1. Call up the adjustment mode display, then select the item **WID**. 2. Press the ◿ −/+button to get the picture so the left and right edges of raster begins to lack. 3. Press the ◿ −/+button to advance the data by 7 steps. Note : Check the horizontal picture position is correct.
E-W PARABOLA (PARA)	1. Call up the adjustment mode display, then select the item **PARA**. 2. Press the ⊕ button on Remote until the cross-hatch pattern appears on the screen. 3. Press the ◿ −/+button to make vertical lines straight as shown below. 
WHITE BALANCE ADJUSTMENT ● CUTOFF ADJUSTMENT (RCUT) (GCUT) (BCUT) ● DRIVE ADJUSTMENT (GDRV) (BDRV)	1. Set Contrast to 40, and brightness to + 20 by picture control. 2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button (see pages 32, 34.). 3. Select RCUT, GCUT and BCUT with CHANNEL ▲, ▼ buttons, to set individual values to 32, and to set GDRV and BDRV to 20 with VOLUME ◿ −/+buttons. 4. Press [-/--] button on the remote control and rotate Screen VR to get one slight horizontal line on screen. Note : Every pressing of [-/--] button provides Horizontal line picture and Normal picture alternately. 5. Press [-/--] button to release horizontal line picture, and select the two other colours which did not light in the above step with CHANNEL ▲, ▼buttons. Then tap VOLUME ◿ −/+buttons so that three colours slightly light in the same level. ※To correct white balance in light area, select GRDV and BDRV with CHANNEL ▲, ▼buttons to adjust. ※To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT. 

SELF DIAGNOSTIC FUNCTION

1) Press "9" button on Remote Control during display of adjustment menu.
   The diagnosis will begin to check if interface among IC's are executed properly.
2) During diagnosis, the following displays are shown.

ex.



①Part number of microcomputer (QA01)

②Operation number of protecting circuit ----"0" is normal. When indication is other than "0", overcurrent apts to flow, and circuit parts may possibly be damaged.

③BUS LINE CHECK ---- "OK" is normal.
"SDA1-GND" means that SDA line is shorted to ground.
"SCL1-GND" means that SCL line is shorted to ground.
"SCL1-SDA1" means that SDA line is shorted to SCL line.

④BUS CONT ---- "OK" is normal.
When indication show "Q ***NG ", the device with the number may possibly be damaged.

⑤ BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (→ 1)
V2 : VIDEO 2 input mode (→ 2)

Indicated colour of mode now selected : Green and Red
Indicated colour of other modes : White

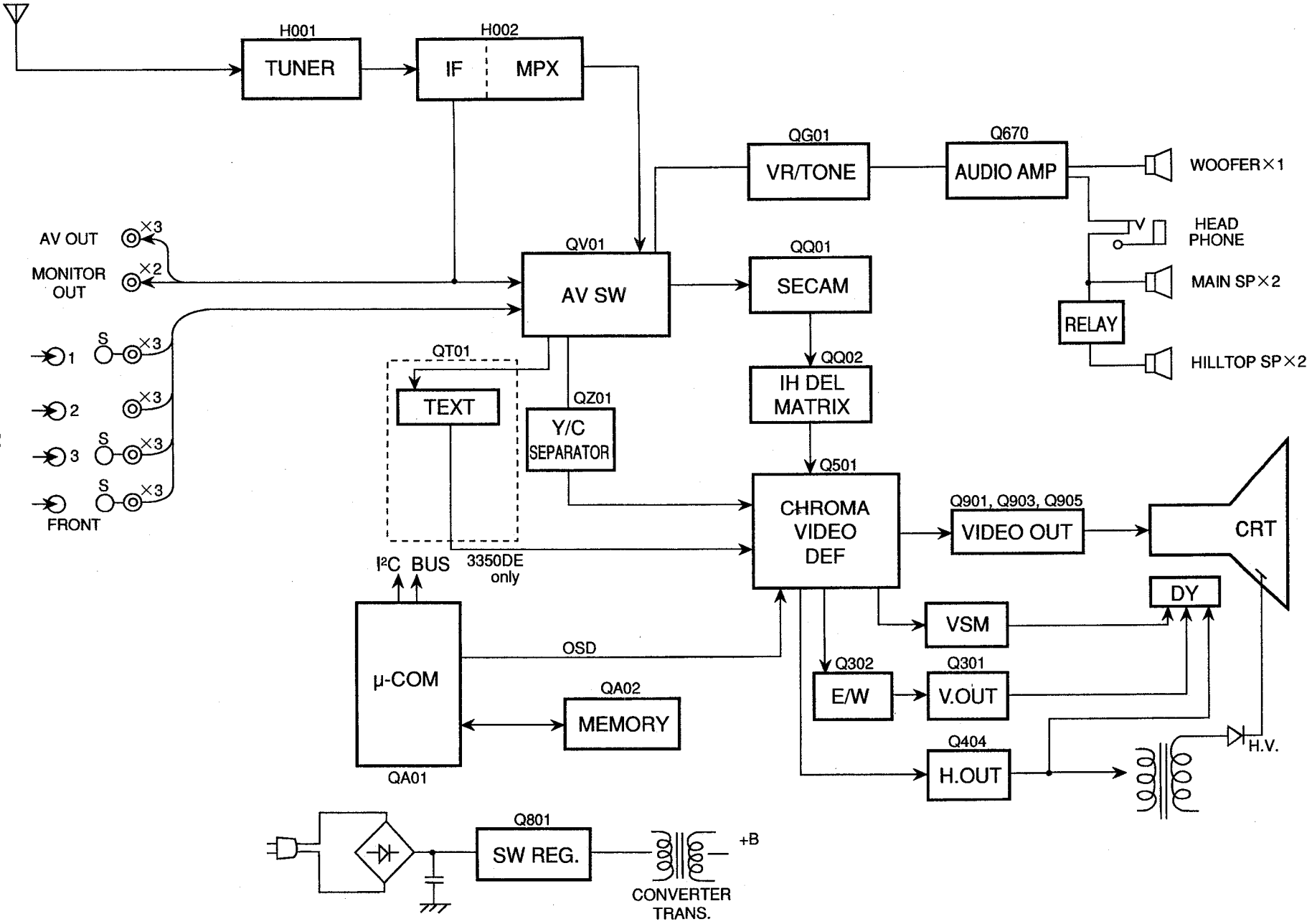
Green : Normal
Red : The microcomputer operates to provide judgement of no video signal. The red colour is still indicated though the signal is input, failure may exist in input signal line including QV01.
QV01 : In case of indication green ---Normal
In case of indication red with input signal ---- Failure may exist in output line including QV01.

3350DE/3350DH BUS-Data

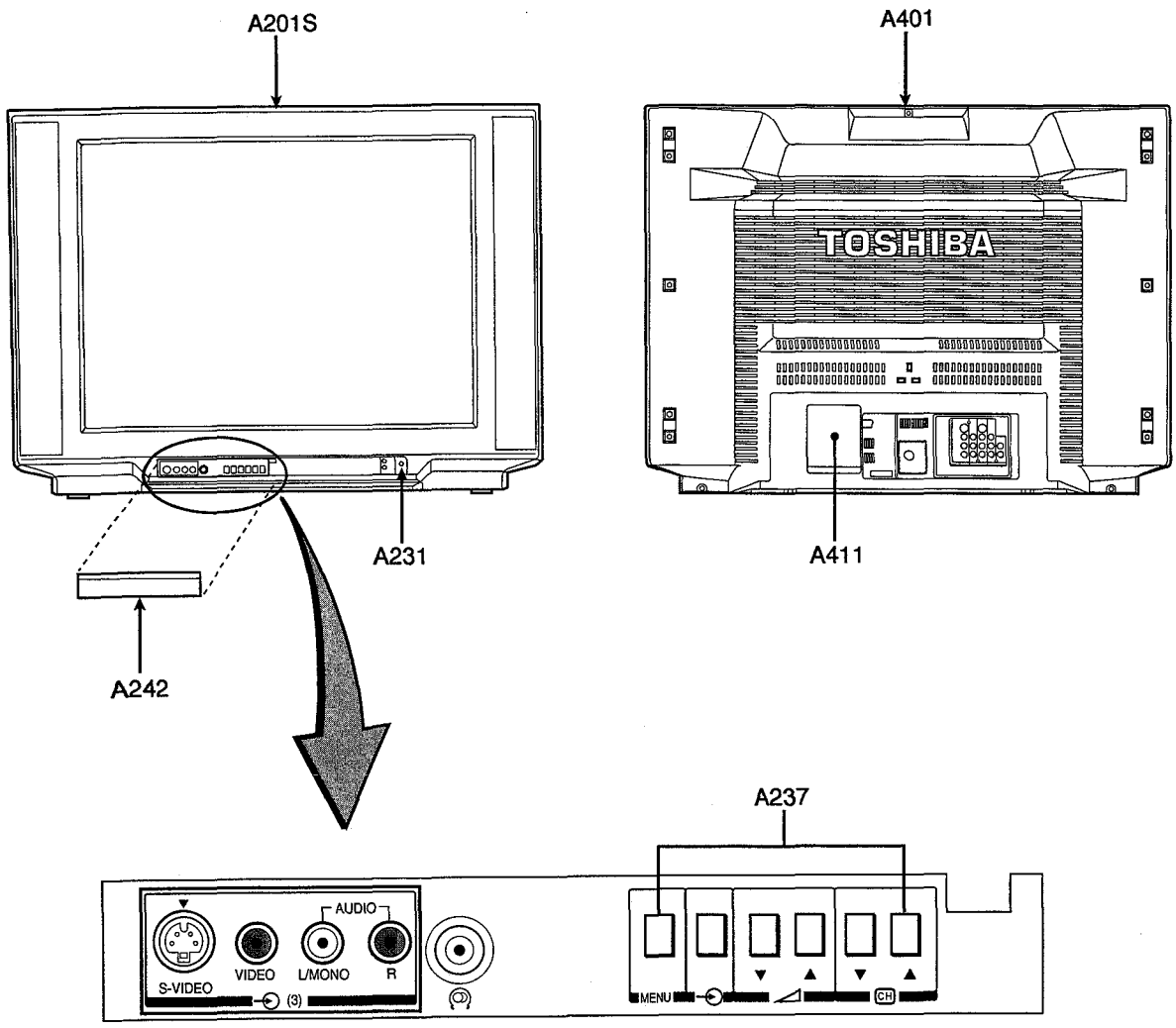
	ITEM NAME	COMMENT	PRESET DATA	3350DE	3350DH
	OPT0	(21):OPTION 0	02	00	02
	OPT1	(22):OPTION 1	82	19	19
☆	RCUT	(30):R CUTOFF	40	←	←
☆	GCUT	(31):G CUTOFF	40	←	←
☆	BCUT	(32):R CUTOFF	40	←	←
☆	GDRV	(33):G DRIVE	40	←	←
☆	BDRV	(34):B DRIVE	40	←	←
	CNTX	(35):SUB CONTRUST MAX	7F	←	←
☆	BRTC	(36):SUB BRIGHT CEN	7F	←	←
	COLC	(37):SUB COLOUR CEN NTSC	50	38	←
☆	TNTC	(38):SUB TINT CEN	40	48	←
☆	COLP	(39):SUB COLOUR CEN PAL	50	←	←
☆	COLS	(3A):SUB COLOUR CEN SECAM	50	←	←
☆	SCOL	(3B):SUB COLOUR	6F	←	←
☆	SCNT	(3C):SUB CONTRUST	7F	←	←
☆	RGBB	(49):RGB BRIGHTNESS	20	←	←
	VOLS	(70):VOL SCART	75	←	←
	FVOL	(71):FM VOL PRE SCALE	15	←	←
	NVOL	(72):NICAM VOL PRE SCALE	3A	←	←
	NICL	(73):NICAM THRESHOLD LEVEL	03	←	←
	NICH	(74):NICAM THRESHOLD LEVEL	0A	←	←
	IDL	(75):NICAM THRESHOLD LEVEL	04	←	←
	IDH	(76):IGR THRESHOLD LEVEL	0A	0E	←
	EVOL	(77):EXT PRE VOLUME	11	←	←
	EMX	(78):NICAM ON LEVEL	FC	←	←
	EMN	(79):NICAM OFF LEVEL	64	←	←
	FMA	(7A):FM ATTENUATER LEVEL	00	←	←
	STS	(7B):STEREO SEPARATION	00	←	←
☆	HPOS	(80):50Hz H-POSITION	0F	←	←
☆	VPOS	(81): ↑ V-POSITION	03	←	←
☆	HIT	(82): ↑ H-WIDTH	4C	←	←
☆	VLIN	(90):50Hz V-LINEARITY	14	←	←
	VSC	(91): ↑ V-S CORRECTION	12	←	←
	VPS	(92): ↑ V-SHIFT	0F	←	←
	VCP	(93): ↑ V-COMPENSATION	03	←	←
☆	WID	(94): ↑ PICTURE WIDTH	24	←	←
☆	PARA	(95): ↑ E-W PARABORA	22	←	←
	CNR	(96): ↑ E-W CORNER	07	←	←
	TRAP	(97): ↑ TRAPEZIUM	10	←	←
	HCP	(98): ↑ H-COMPENSATION	01	←	←
	VFC	(99):50Hz V-F CORRECTION	0F	←	←
	PHP6	(AA):	05	←	←
☆	BELL	:SECAM BELL	80	70	←
☆	SRY	:SECAM R-Y	08	←	←
☆	SBY	:SECAM B-Y	08	←	←
	PHP5	:	0A	←	←
	PBEL	:PIP BELL	71	←	←
	PSRY	:PIP SRY	08	←	←
	PSBY	:PIP SBY	08	←	←

☆ These adjustments may be required when replacing QA02 and Q501.

3350DE/3350DH



CABINET REPLACEMENT PARTS LIST



3350DE, 3350DH

Location No.	Part No.	Description
A201S	23410875	Front Cover (3350DE)
A201S	23410890	Front Cover (3350DH)
A223	23451828	CRT Support
A231	23443960	Button, POWER
A237	23444882	Button, CONTROL
A241	70368125	Push Catch for Door
A242	23426891	Door (3350DE)
A242	23426910	Door (3350DH)
A401	23426890	Back Cover
A411	23569904	Label, Model No. (3350DE)
A411	23569905	Label, Model No. (3350DH)

CHASSIS REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

ABBREVIATIONS:

Capacitors.....	CD	: Ceramic Disk	PF	: Plastic Film	EL	: Electrolytic
Resistors.....	CF	: Carbon Film	CC	: Carbon Composition	MF	: Metal Film
	OMF	: Oxide Metal Film	VR	: Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Part No.	Description
CAPACITORS		
C101	24796479	EL, 4.7μF, ±20%, 35V
C102	24763221	EL, 220μF, ±20%, 16V
C103	24232103	CD, 0.01μF, +80%, -20%
C104	24794470	EL, 47μF, ±20%, 16V
C105	24212102	CD, 1000pF, ±10%
C106	24797100	EL, 10μF, ±20%, 50V
C107	24763221	EL, 220μF, ±20%, 16V
C108	24763221	EL, 220μF, ±20%, 16V
C115	24232103	CD, 0.01μF, +80%, -20%
C116	24763221	EL, 220μF, ±20%, 16V
C201	24206100	EL, 10μF, 50V
C203	24590104	PF, 0.1μF
C204	24206010	EL, 1μF, 50V
C205	24206229	EL, 2.2μF, 50V
C206	24206100	EL, 10μF, 50V
C207	24436270	CD, 27pF
C208	24436270	CD, 27pF
C209	24436270	CD, 27pF
C212	24794100	EL, 10μF, ±20%, 16V
C213	24436820	CD, 82pF
C214	24538334	PF, 0.33μF
C303	24214471	CD, 470pF, ±10%, 500V
C305	24617915	EL, 1μF, ±10%, 50V
C306	24073060	EL, 4700μF, ±20%, 25V
C307	24693473	PF, 0.047μF, 100V
C308	24668221	EL, 220μF, ±20%, 35V
C309	24591102	PF, 1000pF
C310	24796222	EL, 2200μF, ±20%, 35V
C311	24214561	CD, 560pF, ±10%, 500V
C313	24082057	PF, 0.22μF, 100V
C314	24591563	PF, 0.056μF
C315	24797229	EL, 2.2μF, ±20%, 50V
C316	24590104	PF, 0.1μF
C318	24666101	EL, 100μF, ±20%, 16V
C319	24212102	CD, 1000pF, ±10%
C320	24668101	EL, 100μF, ±20%, 35V
C321	24591203	PF, 0.02μF
C322	24617912	EL, 2.2μF, ±10%, 50V
C323	24538224	PF, 0.22μF
C324	24590683	PF, 0.068μF

Location No.	Part No.	Description
C326	24591682	PF, 6800pF
C327	24617787	EL, 470μF, ±20%, 16V
C328	24212103	CD, 0.01μF, ±10%
C341	24797478	EL, 0.47μF, ±20%, 50V
C370	24794101	EL, 100μF, ±20%, 16V
C371	24794100	EL, 10μF, ±20%, 16V
C401	24590104	PF, 0.1μF
C403	24591203	PF, 0.02μF
C404	24797229	EL, 2.2μF, ±20%, 50V
C413	24214821	CD, 820pF, ±10%, 500V
C415	24591392	PF, 3900pF
C416	24678010	EL, 1μF, ±20%, 200V
C417	24214391	CD, 390pF, ±10%, 500V
C420	24666101	EL, 100μF, ±20%, 16V
C423	24829433	PF, 0.43μF, 400V
C424	24766229	EL, 2.2μF, ±20%, 50V (3350DE)
C425	24538154	PF, 0.15μF (3350DE)
C430	24232103	CD, 0.01μF, +80%, -20%
C431	24763102	EL, 1000μF, ±20%, 16V
⚠C440	24082584	PF, 7500pF, ±3%, 1500V
C441	24082628	PF, 0.3μF, 400V
⚠C442	24082649	PF, 0.33μF, 400V
⚠C444	24082611	PF, 6200pF, ±3%, 1800V
C445	24828473	PF, 0.047μF, 200V
C446	24679330	EL, 33μF, ±20%, 250V
C448	24640908	EL, 33μF, ±20%, 160V
C460	24796331	EL, 330μF, ±20%, 35V
⚠C463	24212222	CD, 2200pF, ±10%
C464	24640872	EL, 10μF, ±20%, 100V
C467	24095883	PF, 0.015μF, ±3%, 630V
C470	24794220	EL, 22μF, ±20%, 16V
C472	24538474	PF, 0.47μF
C473	24669010	EL, 1μF, ±20%, 50V
C475	24095887	PF, 0.01μF, ±3%, 630V
C477	24590563	PF, 0.056μF
C478	24590563	PF, 0.056μF
C481	24590104	PF, 0.1μF
C494	24214121	CD, 120pF, ±10%, 500V
C498	24436270	CD, 27pF
C499	24212101	CD, 100pF, ±10%

Location No.	Part No.	Description
C501	24232103	CD, 0.01μF, +80%, −20%
C502	24232103	CD, 0.01μF, +80%, −20%
C503	24763101	EL, 100μF, ±20%, 16V
C504	24591122	PF, 1200pF
C505	24353120	CD, 12pF
C507	24353120	CD, 12pF
C508	24206100	EL, 10μF, 50V
C509	24763101	EL, 100μF, ±20%, 16V
C510	24763101	EL, 100μF, ±20%, 16V
C511	24232103	CD, 0.01μF, +80%, −20%
C512	24206228	EL, 0.22μF, 50V
C513	24232103	CD, 0.01μF, +80%, −20%
C514	24590104	PF, 0.1μF
C515	24590104	PF, 0.1μF
C517	24353010	CD, 1pF, ±0.25pF
C519	24353010	CD, 1pF, ±0.25pF
C520	24436561	CD, 560pF
C521	24353181	CD, 180pF
C613	24794470	EL, 47μF, ±20%, 16V
C660	24206229	EL, 2.2μF, 50V
C661	24590104	PF, 0.1μF
C664	24203100	EL, 10μF, ±20%, 16V
C665	24206229	EL, 2.2μF, 50V
C666	24206229	EL, 2.2μF, 50V
C671	24797010	EL, 1μF, ±20%, 50V
C673	24797010	EL, 1μF, ±20%, 50V
C674	24797010	EL, 1μF, ±20%, 50V
C675	24795470	EL, 47μF, ±20%, 25V
C676	24797479	EL, 4.7μF, ±20%, 50V
C677	24591102	PF, 1000pF
C678	24591102	PF, 1000pF
C679	24590104	PF, 0.1μF
C680	24668102	EL, 1000μF, ±20%, 35V
C681	24668471	EL, 470μF, ±20%, 35V
C682	24668471	EL, 470μF, ±20%, 35V
C683	24668102	EL, 1000μF, ±20%, 35V
C684	24591124	PF, 0.12μF
C685	24591124	PF, 0.12μF
C686	24591124	PF, 0.12μF
C687	24794220	EL, 22μF, ±20%, 16V
C704	24591822	PF, 8200pF
C705	24232103	CD, 0.01μF, +80%, −20%
C707	24794470	EL, 47μF, ±20%, 16V
C712	24666470	EL, 47μF, ±20%, 16V
C713	24790100	EL, 10μF, ±20%, 160V
C714	24436101	CD, 100pF
C715	24214472	CD, 4700pF, ±10%, 500V
C716	24436101	CD, 100pF
C717	24214472	CD, 4700pF, ±10%, 500V
C718	24790470	EL, 47μF, ±20%, 160V
C719	24435151	CD, 150pF, 500V
C720	24790100	EL, 10μF, ±20%, 160V
C721	24790470	EL, 47μF, ±20%, 160V
C722	24436561	CD, 560pF
C726	24212102	CD, 1000pF, ±10%
⚠C801	24082363	PF, 0.22μF, ±20%, AC250V
⚠C802	24082363	PF, 0.22μF, ±20%, AC250V (3350DH)
⚠C805	24092281	CD, 4700pF, ±20%, AC250V
⚠C806	24092281	CD, 4700pF, ±20%, AC250V
C808	24669331	EL, 330μF, ±20%
C809	24214471	CD, 470pF, ±10%, 500V
C810	24086043	EL, 820μF, ±20%, 450V
⚠C811	24094655	CD, 1000pF, ±20%, AC400V

Location No.	Part No.	Description
⚠C813	24094654	CD, 470pF, ±20%, AC400V
⚠C814	24094654	CD, 470pF, ±20%, AC400V
C815	24094654	CD, 470pF, ±20%, AC400V
C816	24669221	EL, 220μF, ±20%, 50V
C817	24092341	CD, 470pF, ±10%, 2kV
C818	24095931	PF, 2200pF, 1250V
C819	24676220	EL, 22μF, ±20%, 100V
C820	24092343	CD, 680pF, ±10%, 2kV
C821	24214471	CD, 470pF, ±10%, 500V
C829	24590152	PF, 1500pF
C831	24669470	EL, 47μF, ±20%, 50V
C832	24669470	EL, 47μF, ±20%, 50V
C833	24669229	EL, 2.2μF, ±20%, 50V
C841	24669100	EL, 10μF, ±20%, 50V
C842	24669100	EL, 10μF, ±20%, 50V
C843	24590104	PF, 0.1μF
C846	24538334	PF, 0.33μF
C860	24794100	EL, 10μF, ±20%, 16V
C884	24086916	EL, 330μF, ±20%, 160V
C885	24214471	CD, 470pF, ±10%, 500V
C887	24214471	CD, 470pF, ±10%, 500V
C889	24669222	EL, 2200μF, ±20%, 50V
C892	24795222	EL, 2200μF, ±20%, 25V
C893	24092337	CD, 220pF, ±10%, 2kV
C895	24676470	EL, 47μF, ±20%, 100V
C896	24214471	CD, 470pF, ±10%, 500V
C897	24666222	EL, 2200μF, ±20%, 16V
C898	24212101	CD, 100pF, ±10%
C899	24214471	CD, 470pF, ±10%, 500V
C902	24092353	CD, 4700pF, ±10%, 2kV
C904	24436271	CD, 270pF
C905	24436271	CD, 270pF
C907	24436271	CD, 270pF
C909	24679330	EL, 33μF, ±20%, 250V
C910	24797478	EL, 0.47μF, ±20%, 50V
C911	24203100	EL, 10μF, ±20%, 16V
C912	24794471	EL, 470μF, ±20%, 16V
C913	24763102	EL, 1000μF, ±20%, 16V
C914	24212103	CD, 0.01μF, ±10%
C920	24591104	PF, 0.1μF
C921	24591104	PF, 0.1μF
C930	24214101	CD, 100pF, ±10%, 500V
C931	24214101	CD, 100pF, ±10%, 500V
CA13	24212101	CD, 100pF, ±10%
CA22	24212101	CD, 100pF, ±10%
CA23	24212101	CD, 100pF, ±10%
CA24	24212101	CD, 100pF, ±10%
CA25	24212101	CD, 100pF, ±10%
CA30	24212101	CD, 100pF, ±10%
CA33	24232103	CD, 0.01μF, +80%, −20%
CA37	24212101	CD, 100pF, ±10%
CA38	24212101	CD, 100pF, ±10%
CA42	24794100	EL, 10μF, ±20%, 16V
CA43	24232103	CD, 0.01μF, +80%, −20%
CA44	24232103	CD, 0.01μF, +80%, −20%
CA68	24794100	EL, 10μF, ±20%, 16V
CA69	24232103	CD, 0.01μF, +80%, −20%
CB01	24794470	EL, 47μF, ±20%, 16V
CB40	24212101	CD, 100pF, ±10%
CB41	24212101	CD, 100pF, ±10%
CG01	24538224	PF, 0.22μF
CG02	24590104	PF, 0.1μF
CG03	24590104	PF, 0.1μF
CG04	24206010	EL, 1μF, 50V

Location No.	Part No.	Description
CG05	24203220	EL, 22μF, ±20%, 16V
CG07	24206010	EL, 1μF, 50V
CG08	24206010	EL, 1μF, 50V
CG09	24206010	EL, 1μF, 50V
CG12	24590273	PF, 0.027μF
CG13	24232103	CD, 0.01μF, +80%, -20%
CG14	24203101	EL, 100μF, ±20%, 16V
CG15	24590822	PF, 8200pF
CG16	24206010	EL, 1μF, 50V
CG17	24590273	PF, 0.027μF
CG18	24590822	PF, 8200pF
CG25	24212102	CD, 1000pF, ±10%
CG26	24206100	EL, 10μF, 50V
CG27	24206229	EL, 2.2μF, 50V
CG28	24206229	EL, 2.2μF, 50V
CG30	24206100	EL, 10μF, 50V
CQ01	24212102	CD, 1000pF, ±10%
CQ02	24353820	CD, 82pF
CQ03	24212102	CD, 1000pF, ±10%
CQ04	24794100	EL, 10μF, ±20%, 16V
CQ05	24590563	PF, 0.056μF
CQ07	24590203	PF, 0.02μF
CQ08	24590683	PF, 0.068μF
CQ09	24797229	EL, 2.2μF, ±20%, 50V
CQ10	24590223	PF, 0.022μF
CQ11	24797229	EL, 2.2μF, ±20%, 50V
CQ12	24436910	CD, 91pF
CQ13	24797010	EL, 1μF, ±20%, 50V
CQ14	24797010	EL, 1μF, ±20%, 50V
CQ15	24794101	EL, 100μF, ±20%, 16V
CQ16	24232103	CD, 0.01μF, +80%, -20%
CQ17	24353150	CD, 15pF
CQ18	24436910	CD, 91pF
CQ19	24590103	PF, 0.01μF
CQ20	24538104	PF, 0.1μF
CQ21	24794470	EL, 47μF, ±20%, 16V
CQ22	24232103	CD, 0.01μF, +80%, -20%
CQ23	24538104	PF, 0.1μF
CQ24	24538104	PF, 0.1μF
CQ25	24797100	EL, 10μF, ±20%, 50V
CQ26	24538104	PF, 0.1μF
CQ27	24538104	PF, 0.1μF
CQ28	24797478	EL, 0.47μF, ±20%, 50V
CQ29	24794101	EL, 100μF, ±20%, 16V
CQ30	24232103	CD, 0.01μF, +80%, -20%
CQ31	24797478	EL, 0.47μF, ±20%, 50V
CQ32	24590103	PF, 0.01μF
CQ33	24538104	PF, 0.1μF
CQ34	24538104	PF, 0.1μF
CQ35	24206478	EL, 0.47μF, 50V
CQ36	24206478	EL, 0.47μF, 50V
CQ37	24797010	EL, 1μF, ±20%, 50V
CQ38	24797010	EL, 1μF, ±20%, 50V
CQ39	24797010	EL, 1μF, ±20%, 50V
CQ40	24436910	CD, 91pF
CR06	24666100	EL, 10μF, ±20%, 16V
CR12	24590104	PF, 0.1μF (3350DE)
CR13	24590104	PF, 0.1μF (3350DE)
CR14	24590104	PF, 0.1μF (3350DE)
CS01	24206229	EL, 2.2μF, 50V
CS02	24206229	EL, 2.2μF, 50V
CS05	24206229	EL, 2.2μF, 50V
CS06	24206229	EL, 2.2μF, 50V
CS07	24206229	EL, 2.2μF, 50V

Location No.	Part No.	Description
CS08	24206229	EL, 2.2μF, 50V
CS09	24206229	EL, 2.2μF, 50V
CS11	24232103	CD, 0.01μF, +80%, -20%
CS14	24206100	EL, 10μF, 50V
CS15	24206100	EL, 10μF, 50V
CS16	24206229	EL, 2.2μF, 50V
CS19	24206478	EL, 0.47μF, 50V
CS20	24206100	EL, 10μF, 50V
CS21	24206100	EL, 10μF, 50V
CT01	24590104	PF, 0.1μF
CT02	24353080	CD, 8pF, ±0.25pF
CT03	24353150	CD, 15pF
CT04	24212102	CD, 1000pF, ±10%
CT05	24590104	PF, 0.1μF
CT06	24590104	PF, 0.1μF
CT07	24085944	EL, 2.2μF, ±20%, 50V, Non-Polar
CT08	24232103	CD, 0.01μF, +80%, -20%
CT09	24794101	EL, 100μF, ±20%, 16V
CT10	24436220	CD, 22pF
CT11	24794101	EL, 100μF, ±20%, 16V
CT12	24590104	PF, 0.1μF
CT13	24794100	EL, 10μF, ±20%, 16V
CT14	24794100	EL, 10μF, ±20%, 16V
CT15	24436101	CD, 100pF
CT16	24436220	CD, 22pF
CT17	24232103	CD, 0.01μF, +80%, -20%
CV01	24590473	PF, 0.047μF
CV02	24666100	EL, 10μF, ±20%, 16V
CV04	24666100	EL, 10μF, ±20%, 16V
CV05	24232103	CD, 0.01μF, +80%, -20%
CV06	24666100	EL, 10μF, ±20%, 16V
CV08	24763102	EL, 1000μF, ±20%, 16V
CV09	24666100	EL, 10μF, ±20%, 16V
CV10	24085970	EL, 10μF, ±20%, 16V, Non-Polar
CV11	24474331	CD, 330pF, ±10%
CV12	24232103	CD, 0.01μF, +80%, -20%
CV35	24212102	CD, 1000pF, ±10%
CV37	24474102	CD, 1000pF, ±10%
CV39	24666101	EL, 100μF, ±20%, 16V
CV40	24232103	CD, 0.01μF, +80%, -20%
CV42	24203330	EL, 33μF, ±20%, 16V
CV43	24436121	CD, 120pF
CV44	24436121	CD, 120pF
CV46	24436100	CD, 10pF, ±0.25pF
CV48	24212102	CD, 1000pF, ±10%
CV50	24232103	CD, 0.01μF, +80%, -20%
CV71	24794471	EL, 470μF, ±20%, 16V
CV72	24766101	PF, 0.1μF
CV73	24212103	CD, 0.01μF, ±10%
CZ07	24206229	EL, 2.2μF, 50V
CZ08	24203100	EL, 10μF, ±20%, 16V
CZ09	24436220	CD, 22pF
CZ10	24473180	CD, 18pF
CZ11	24473100	CD, 10pF
CZ12	24232103	CD, 0.01μF, +80%, -20%
CZ13	24092398	CD, 0.1μF, +80%, -20%
CZ14	24617816	EL, 10μF, ±20%, 50V
CZ15	24232103	CD, 0.01μF, +80%, -20%
CZ16	24206478	EL, 0.47μF, 50V
CZ17	24232103	CD, 0.01μF, +80%, -20%
CZ19	24436181	CD, 180pF
CZ20	24538103	PF, 0.01μF

Location No.	Part No.	Description
CZ21	24436390	CD, 39pF
CZ22	24617816	EL, 10μF, ±20%, 50V
CZ23	24092398	CD, 0.1μF, +80%,–20%
CZ24	24092398	CD, 0.1μF, +80%,–20%
CZ25	24203101	EL, 100μF, ±20%, 16V
CZ26	24232103	CD, 0.01μF, +80%, –20%
CZ28	24232103	CD, 0.01μF, +80%, –20%
CZ29	24092398	CD, 0.1μF, +80%,–20%
CZ30	24617816	EL, 10μF, ±20%, 50V
CZ32	24436120	CD, 12pF
CZ33	24436120	CD, 12pF
CZ34	24473120	CD, 12pF
CZ35	24473120	CD, 12pF
CZ36	24232103	CD, 0.01μF, +80%, –20%
CZ37	24092398	CD, 0.1μF, +80%,–20%
CZ38	24092398	CD, 0.1μF, +80%,–20%
CZ43	24232103	CD, 0.01μF, +80%, –20%
CZ45	24436180	CD, 18pF
RESISTORS		
R101	24382223	OMF, 22k ohm, 1W
R201	24366821	CF, 820 ohm
R202	24366821	CF, 820 ohm
R204	24366104	CF, 100k ohm
R205	24366222	CF, 2200 ohm
R206	24366102	CF, 1k ohm
R207	24366101	CF, 100 ohm
R208	24366101	CF, 100 ohm
R209	24366101	CF, 100 ohm
R212	24366472	CF, 4700 ohm
R213	24366122	CF, 1200 ohm
R214	24366222	CF, 2200 ohm
R215	24366103	CF, 10k ohm
R216	24366103	CF, 10k ohm
R217	24366102	CF, 1k ohm
R218	24367752	CF, 7500 ohm, ±2%
R220	24366103	CF, 10k ohm
R221	24366102	CF, 1k ohm
R222	24366471	CF, 470 ohm
R223	24366102	CF, 1k ohm
R224	24366271	CF, 270 ohm
R225	24366100	CF, 10 ohm
R226	24366223	CF, 22k ohm
R227	24367622	CF, 6200 ohm, ±2%
R228	24366104	CF, 100k ohm
R229	24366223	CF, 22k ohm
R233	24366120	CF, 12 ohm
R240	24366152	CF, 1500 ohm
R301	24366102	CF, 1k ohm
R303	24321159	MF, 1.5 ohm, 1/2W
R304	24366393	CF, 39k ohm
R305	24322688	MF, 0.68 ohm, 1W
R306	24366823	CF, 82k ohm
R307	24366474	CF, 470k ohm
R310	24382471	OMF, 470 ohm, 1W
R311	24366392	CF, 3900 ohm
R312	24366153	CF, 15k ohm
R313	24366823	CF, 82k ohm
R314	24366105	CF, 1M ohm
R315	24366105	CF, 1M ohm
R316	24366154	CF, 150k ohm
R318	24366471	CF, 470 ohm
R319	24366471	CF, 470 ohm
R320	24366101	CF, 100 ohm

Location No.	Part No.	Description
R326	24366204	CF, 200k ohm
⚠R327	24339479	MF, 4.7 ohm, 2W
R329	24366223	CF, 22k ohm
R330	24366102	CF, 1k ohm
R331	24366104	CF, 100k ohm
R336	24383331	OMF, 330 ohm, 2W
R341	24366153	CF, 15k ohm
R343	24366153	CF, 15k ohm
R344	24383122	OMF, 1200 ohm, 2W
R370	24321109	MF, 1 ohm, 1/2W
R371	24366562	CF, 5600 ohm
R372	24366392	CF, 3900 ohm
R373	24366182	CF, 1800 ohm
R374	24366153	CF, 15k ohm
R401	24366391	CF, 390 ohm
R402	24366103	CF, 10k ohm
R403	24366302	CF, 3k ohm
R405	24553682	OMF, 6800 ohm, 1W
R407	24366103	CF, 10k ohm
R410	24366331	CF, 330 ohm
R411	24366331	CF, 330 ohm
R413	24366682	CF, 6800 ohm
R415	24553272	OMF, 2700 ohm, 1W
R416	24510562	Cement, 5600 ohm, 5W
R423	24366473	CF, 47k ohm (3350DE)
R425	24552332	OMF, 3300 ohm, 1/2W
R426	24366821	CF, 820 ohm
R427	24366392	CF, 3900 ohm
R428	24366561	CF, 560 ohm
R429	24552560	OMF, 56 ohm, 1/2W
R430	24366101	CF, 100 ohm
R431	24366103	CF, 10k ohm (3350DE)
R432	24531270	FR, 27 ohm, 1/2W
R434	24366332	CF, 3300 ohm (3350DE)
R441	24532102	FR, 1k ohm, 1W
R442	24382513	OMF, 51k ohm, 1W
R460	24552332	OMF, 3300 ohm, 1/2W
R461	24552242	OMF, 2400 ohm, 1/2W
R463	24323479	OMF, 4.7 ohm, 2W
R464	24366273	CF, 27k ohm
R465	24366114	CF, 110k ohm
R466	24366562	CF, 5600 ohm
⚠R469	24000211	FR, 15 ohm, 1/2W
R470	24338568	MF, 0.56 ohm, 1W
R471	24531271	FR, 270 ohm, 1/2W
R473	24366184	CF, 180k ohm
R474	24366184	CF, 180k ohm
R478	24376333	CF, 33k ohm, 1/2W
R479	24531680	FR, 68 ohm, 1/2W
R480	24552222	OMF, 2200 ohm, 1/2W
R481	24366223	CF, 22k ohm
R482	24366223	CF, 22k ohm
R487	24366474	CF, 470k ohm
R488	24366154	CF, 150k ohm
R494	24366222	CF, 2200 ohm (3350DE)
R495	24366223	CF, 22k ohm (3350DE)
R496	24366473	CF, 47k ohm (3350DE)
R497	24366222	CF, 2200 ohm (3350DE)
R498	24366333	CF, 33k ohm (3350DE)
R499	24366473	CF, 47k ohm (3350DE)
R501	24366623	CF, 62k ohm
R502	24366101	CF, 100 ohm
R503	24366101	CF, 100 ohm
R505	24366102	CF, 1k ohm

Location No.	Part No.	Description
R506	24366103	CF, 10k ohm
R508	24366102	CF, 1k ohm
R509	24366102	CF, 1k ohm
R510	24366102	CF, 1k ohm
R511	24366101	CF, 100 ohm
R512	24366101	CF, 100 ohm
R520	24366103	CF, 10k ohm
R521	24366223	CF, 22k ohm
R522	24366473	CF, 47k ohm
R610	24366103	CF, 10k ohm
R611	24366103	CF, 10k ohm
R612	24366103	CF, 10k ohm
R661	24552221	OMF, 220 ohm, 1/2W
R662	24552221	OMF, 220 ohm, 1/2W
R666	24366102	CF, 1k ohm
R667	24366102	CF, 1k ohm
R670	24366272	CF, 2700 ohm
R671	24366392	CF, 3900 ohm
R672	24366272	CF, 2700 ohm
R673	24366392	CF, 3900 ohm
R674	24366562	CF, 5600 ohm
R675	24366332	CF, 3300 ohm
R676	24366223	CF, 22k ohm
R677	24366223	CF, 22k ohm
R680	24366473	CF, 47k ohm
R682	24366104	CF, 100k ohm
R683	24366273	CF, 27k ohm
R684	24366229	CF, 2.2 ohm
R685	24366229	CF, 2.2 ohm
R686	24366229	CF, 2.2 ohm
R687	24366222	CF, 2200 ohm
R702	24366222	CF, 2200 ohm
R709	24366563	CF, 56k ohm
R713	24366393	CF, 39k ohm
R714	24552121	OMF, 120 ohm, 1/2W
R715	24366223	CF, 22k ohm
R716	24366273	CF, 27k ohm
R717	24366333	CF, 33k ohm
R718	24366222	CF, 2200 ohm
R719	24366392	CF, 3900 ohm
R720	24366392	CF, 3900 ohm
R721	24366102	CF, 1k ohm
R722	24552471	OMF, 470 ohm, 1/2W
R723	24366471	CF, 470 ohm
R724	24366470	CF, 47 ohm
R725	24366182	CF, 1800 ohm
R730	24552100	OMF, 10 ohm, 1/2W
R731	24552331	OMF, 330 ohm, 1/2W
R732	24366820	CF, 82 ohm
R733	24366683	CF, 68k ohm
R734	24366820	CF, 82 ohm
R735	24366683	CF, 68k ohm
R736	24552620	OMF, 62 ohm, 1/2W
R737	24366152	CF, 1500 ohm
R738	24366123	CF, 12k ohm
R739	24366152	CF, 1500 ohm
R740	24552620	OMF, 62 ohm, 1/2W
⚠R741	24321279	MF, 2.7 ohm, 1/2W
⚠R742	24321279	MF, 2.7 ohm, 1/2W
R743	24554221	OMF, 220 ohm, 2W
R744	24366122	CF, 1200 ohm
R745	24366122	CF, 1200 ohm
⚠R801	24009954	Metal-Glazed Resistor, 2.2M ohm, 1/2W

Location No.	Part No.	Description
R802	24321568	MF, 0.56 ohm, 1/2W
R803	24384333	OMF, 33k ohm, 3W
R805	24366101	CF, 100 ohm
R806	24552332	OMF, 3300 ohm, 1/2W
⚠R808	24019340	PTC Thermistor, 18 ohm, 290V
R811	24568271	Cement, 270 ohm, 7W
R812	24510479	Cement, 4.7 ohm, 5W
R813	24007061	Cement, 1.8 ohm, ±10%, 2W
R814	24366122	CF, 1200 ohm
R815	24552102	OMF, 1k ohm, 1/2W
R816	24323689	MF, 6.8 ohm, 2W
R818	24322278	MF, 0.27 ohm, 1W
R819	24321338	MF, 0.33 ohm, 1/2W
R821	24366101	CF, 100 ohm
R822	24552103	OMF, 10k ohm, 1/2W
R823	24366272	CF, 2700 ohm
R824	24569560	Cement, 56 ohm, 10W
R827	24366472	CF, 4700 ohm
R828	24366222	CF, 2200 ohm
R829	24322278	MF, 0.27 ohm, 1W
R830	24366471	CF, 470 ohm
R833	24366471	CF, 470 ohm
R841	24531120	FR, 12 ohm, 1/2W
R842	24381392	OMF, 3900 ohm, 1/2W
R846	24366560	CF, 56 ohm
R847	24366472	CF, 4700 ohm
R880	24552471	OMF, 470 ohm, 1/2W
R881	24552561	OMF, 560 ohm, 1/2W
⚠R889	24383102	OMF, 1k ohm, 2W
R890	24553333	OMF, 33k ohm, 1W
R899	24005007	Metal-Glazed Resistor, 8.2M ohm, 1W
R901	24376561	CF, 560 ohm, 1/2W
R902	24376561	CF, 560 ohm, 1/2W
R903	24376561	CF, 560 ohm, 1/2W
R904	24366472	CF, 4700 ohm
R905	24366150	CF, 15 ohm
R909	24366222	CF, 2200 ohm
R912	24366102	CF, 1k ohm
R914	24366561	CF, 560 ohm
R915	24366101	CF, 100 ohm
R916	24366510	CF, 51 ohm
R917	24366471	CF, 470 ohm
R918	24366820	CF, 82 ohm
R919	24366102	CF, 1k ohm
⚠R920	24000568	FR, 4.7 ohm, 1W
R921	24366561	CF, 560 ohm
R922	24366101	CF, 100 ohm
R924	24366820	CF, 82 ohm
R925	24366471	CF, 470 ohm
R926	24366102	CF, 1k ohm
R928	24366561	CF, 560 ohm
R929	24366101	CF, 100 ohm
R930	24366820	CF, 82 ohm
R932	24366332	CF, 3300 ohm
R933	24366750	CF, 75 ohm
R934	24366391	CF, 390 ohm
R935	24366821	CF, 820 ohm
R936	24366750	CF, 75 ohm
R937	24366471	CF, 470 ohm
R939	24366101	CF, 100 ohm
R942	24366392	CF, 3900 ohm
R943	24366392	CF, 3900 ohm

Location No.	Part No.	Description
R944	24366392	CF, 3900 ohm
R945	24366510	CF, 51 ohm
R946	24366510	CF, 51 ohm
R960	24383153	OMF, 15k ohm, 2W
R961	24383153	OMF, 15k ohm, 2W
R962	24383153	OMF, 15k ohm, 2W
R963	24383153	OMF, 15k ohm, 2W
R964	24383153	OMF, 15k ohm, 2W
R965	24383153	OMF, 15k ohm, 2W
R977	24366122	CF, 1200 ohm
R980	24366471	CF, 470 ohm
R981	24366821	CF, 820 ohm
R982	24366103	CF, 10k ohm
R983	24366222	CF, 2200 ohm
R984	24367152	CF, 1500 ohm, ±2%
R985	24367471	CF, 470 ohm, ±2%
R986	24367681	CF, 680 ohm, ±2%
R987	24367681	CF, 680 ohm, ±2%
R988	24367472	CF, 4700 ohm, ±2%
R989	24367332	CF, 3300 ohm, ±2%
R990	24366242	CF, 2400 ohm
R991	24367681	CF, 680 ohm, ±2%
R992	24366150	CF, 15 ohm
RA03	24366102	CF, 1k ohm
RA04	24366102	CF, 1k ohm
RA05	24366102	CF, 1k ohm
RA07	24366102	CF, 1k ohm
RA08	24366102	CF, 1k ohm
RA13	24366123	CF, 12k ohm
RA16	24366102	CF, 1k ohm
RA17	24366102	CF, 1k ohm
RA18	24366102	CF, 1k ohm
RA22	24366331	CF, 330 ohm
RA23	24366331	CF, 330 ohm
RA24	24366331	CF, 330 ohm
RA25	24366331	CF, 330 ohm
RA26	24366102	CF, 1k ohm
RA27	24366102	CF, 1k ohm
RA33	24366102	CF, 1k ohm
RA35	24366102	CF, 1k ohm
RA36	24366103	CF, 10k ohm
RA37	24366101	CF, 100 ohm
RA38	24366101	CF, 100 ohm
RA40	24366331	CF, 330 ohm
RA41	24366331	CF, 330 ohm
RA61	24366103	CF, 10k ohm
RA62	24366103	CF, 10k ohm
RA63	24366332	CF, 3300 ohm
RA64	24366332	CF, 3300 ohm
RA67	24366472	CF, 4700 ohm
RA68	24366472	CF, 4700 ohm
RA70	24366333	CF, 33k ohm
RA71	24366683	CF, 68k ohm
RA72	24366223	CF, 22k ohm
RA73	24366103	CF, 10k ohm
RA75	24366333	CF, 33k ohm
RA76	24366103	CF, 10k ohm
RA77	24366223	CF, 22k ohm
RB01	24366271	CF, 270 ohm
RB02	24366221	CF, 220 ohm
RB03	24366101	CF, 100 ohm
RB04	24366223	CF, 22k ohm
RB09	24366470	CF, 47 ohm
RB30	24366103	CF, 10k ohm

Location No.	Part No.	Description
RB40	24366103	CF, 10k ohm
RB41	24366182	CF, 1800 ohm
RB42	24366102	CF, 1k ohm
RB43	24366103	CF, 10k ohm
RB44	24366103	CF, 10k ohm
RB45	24366101	CF, 100 ohm
RG01	24366223	CF, 22k ohm
RG02	24366223	CF, 22k ohm
RG03	24366101	CF, 100 ohm
RG04	24366101	CF, 100 ohm
RG05	24366101	CF, 100 ohm
RG07	24366101	CF, 100 ohm
RG08	24366101	CF, 100 ohm
RG09	24366392	CF, 3900 ohm
RG10	24366272	CF, 2700 ohm
RG11	24366392	CF, 3900 ohm
RG12	24366272	CF, 2700 ohm
RQ01	24366102	CF, 1k ohm
RQ02	24366475	CF, 4.7M ohm
RQ03	24366102	CF, 1k ohm
RQ04	24366511	CF, 510 ohm
RQ05	24366471	CF, 470 ohm
RQ06	24366471	CF, 470 ohm
RQ07	24366103	CF, 10k ohm
RQ08	24366102	CF, 1k ohm
RQ09	24366102	CF, 1k ohm
RQ10	24366102	CF, 1k ohm
RQ11	24366561	CF, 560 ohm
RQ12	24366561	CF, 560 ohm
RQ13	24366203	CF, 20k ohm
RQ14	24366273	CF, 27k ohm
RR01	24366472	CF, 4700 ohm
RR02	24366472	CF, 4700 ohm
RR03	24366472	CF, 4700 ohm
RR18	24366102	CF, 1k ohm
RR24	24366101	CF, 100 ohm
RR25	24366101	CF, 100 ohm
RR26	24366101	CF, 100 ohm
RR33	24366821	CF, 820 ohm
RR34	24366821	CF, 820 ohm
RR35	24366821	CF, 820 ohm
RR36	24366332	CF, 3300 ohm
RR37	24366332	CF, 3300 ohm
RR38	24366332	CF, 3300 ohm
RR93	24366472	CF, 4700 ohm
RS03	24366101	CF, 100 ohm
RS04	24366101	CF, 100 ohm
RS07	24366472	CF, 4700 ohm
RS08	24366472	CF, 4700 ohm
RS09	24366472	CF, 4700 ohm
RS10	24366472	CF, 4700 ohm
RS11	24366472	CF, 4700 ohm
RS12	24366472	CF, 4700 ohm
RS13	24366101	CF, 100 ohm
RS14	24366101	CF, 100 ohm
RS15	24366104	CF, 100k ohm
RS16	24366104	CF, 100k ohm
RS17	24366223	CF, 22k ohm
RS18	24366223	CF, 22k ohm
RS19	24366102	CF, 1k ohm
RS20	24366102	CF, 1k ohm
RS21	24366222	CF, 2200 ohm
RS22	24366222	CF, 2200 ohm
RS23	24366101	CF, 100 ohm

Location No.	Part No.	Description
RS24	24366101	CF, 100 ohm
RS31	24366103	CF, 10k ohm
RS32	24366104	CF, 100k ohm
RS35	24366104	CF, 100k ohm
RS36	24366223	CF, 22k ohm
RS37	24366102	CF, 1k ohm
RS38	24366222	CF, 2200 ohm
RS39	24366101	CF, 100 ohm
RS40	24366104	CF, 100k ohm
RS41	24366223	CF, 22k ohm
RS42	24366102	CF, 1k ohm
RS43	24366222	CF, 2200 ohm
RS44	24366101	CF, 100 ohm
RT01	24366332	CF, 3300 ohm
RT02	24366100	CF, 10 ohm
RT03	24366101	CF, 100 ohm
RT04	24366273	CF, 27k ohm
RT05	24366103	CF, 10k ohm
RT06	24366103	CF, 10k ohm
RT07	24366102	CF, 1k ohm
RT08	24366103	CF, 10k ohm
RT09	24366101	CF, 100 ohm
RT10	24366472	CF, 4700 ohm
RT11	24366392	CF, 3900 ohm
RT12	24366682	CF, 6800 ohm
RT13	24366103	CF, 10k ohm
RT14	24366222	CF, 2200 ohm
RT15	24366101	CF, 100 ohm
RT16	24366101	CF, 100 ohm
RT17	24366102	CF, 1k ohm
RT18	24366152	CF, 1500 ohm
RT19	24366122	CF, 1200 ohm
RT20	24366471	CF, 470 ohm
RT21	24366561	CF, 560 ohm
RT22	24366271	CF, 270 ohm
RT23	24366821	CF, 820 ohm
RV01	24366101	CF, 100 ohm
RV03	24366101	CF, 100 ohm
RV04	24366101	CF, 100 ohm
RV05	24366101	CF, 100 ohm
RV06	24366101	CF, 100 ohm
RV09	24366101	CF, 100 ohm
RV10	24366101	CF, 100 ohm
RV11	24366101	CF, 100 ohm
RV12	24366101	CF, 100 ohm
RV13	24366101	CF, 100 ohm
RV14	24366101	CF, 100 ohm
RV15	24366101	CF, 100 ohm
RV17	24366101	CF, 100 ohm
RV18	24366123	CF, 12k ohm
RV30	24366750	CF, 75 ohm
RV31	24366103	CF, 10k ohm
RV32	24366750	CF, 75 ohm
RV35	24366103	CF, 10k ohm
RV39	24366103	CF, 10k ohm
RV40	24366822	CF, 8200 ohm
RV41	24366472	CF, 4700 ohm
RV42	24366471	CF, 470 ohm
RV43	24366471	CF, 470 ohm
RV44	24366471	CF, 470 ohm
RV45	24366152	CF, 1500 ohm
RV46	24366102	CF, 1k ohm
RV47	24366102	CF, 1k ohm
RV48	24366911	CF, 910 ohm

Location No.	Part No.	Description
RV49	24366102	CF, 1k ohm
RV52	24552101	OMF, 100 ohm, 1/2W
RV60	24366682	CF, 6800 ohm
RV71	24366750	CF, 75 ohm
RV72	24366750	CF, 75 ohm
RV73	24366181	CF, 180 ohm
RV74	24366101	CF, 100 ohm
RV80	24366101	CF, 100 ohm
RV85	24366750	CF, 75 ohm
RV87	24366750	CF, 75 ohm
RV88	24366181	CF, 180 ohm
RV95	24366103	CF, 10k ohm
RZ01	24366471	CF, 470 ohm
RZ02	24366152	CF, 1500 ohm
RZ04	24366332	CF, 3300 ohm
RZ05	24366332	CF, 3300 ohm
RZ06	24366821	CF, 820 ohm
RZ07	24366822	CF, 8200 ohm
RZ08	24366332	CF, 3300 ohm
RZ12	24366471	CF, 470 ohm
RZ14	24366123	CF, 12k ohm
RZ15	24366392	CF, 3900 ohm
RZ16	24366122	CF, 1200 ohm
RZ17	24366331	CF, 330 ohm
RZ18	24366821	CF, 820 ohm
RZ19	24366471	CF, 470 ohm
RZ20	24366122	CF, 1200 ohm
RZ22	24366101	CF, 100 ohm
RZ23	24366821	CF, 820 ohm
RZ24	24366821	CF, 820 ohm
RZ25	24366101	CF, 100 ohm
RZ26	24366101	CF, 100 ohm
RZ28	24366564	CF, 560k ohm
RZ29	24366331	CF, 330 ohm
RZ30	24366331	CF, 330 ohm
RZ31	24366102	CF, 1k ohm

COILS & TRANSFORMERS

L201	23289150	Coil, Peaking, TRF4150AF
L202	23238710	Coil, Peaking, TRF4220AJ
L301	23103859	Coil (Ferrite Bead), TEM2011
L302	23238702	Coil, Peaking, TRF4101AJ
L400	23289100	Coil, Peaking, TRF4100AF
L441	23233941	Coil, Linearity, TLN2157G
L442	23248122	Coil, Choke, TLN3384D
L461	23248115	Coil, Choke, TLN3367D
⚠L462	----------	DY, Supplied with V901
L463	23103859	Coil (Ferrite Bead), TEM2011
L501	23289479	Coil, Peaking, TRF44R7AF
L503	23289470	Coil, Peaking, TRF4470AF
L504	23289479	Coil, Peaking, TRF44R7AF
L702	23261974	Coil, Choke, HC5-035
L704	23103859	Coil (Ferrite Bead), TEM2011
L705	23103859	Coil (Ferrite Bead), TEM2011
L811	23103859	Coil (Ferrite Bead), TEM2011
L814	23221747	Coil, Choke, TRF9253D
L815	23103859	Coil (Ferrite Bead), TEM2011
L816	23103859	Coil (Ferrite Bead), TEM2011
L883	23221747	Coil, Choke, TRF9253D
L885	23248073	Coil, Choke, TLN3299D
L886	23103859	Coil (Ferrite Bead), TEM2011
L889	23222694	Coil, Width, TLN2026
L891	23103859	Coil (Ferrite Bead), TEM2011
L892	23103859	Coil (Ferrite Bead), TEM2011

Location No.	Part No.	Description
L893	23280016	Coil, Peaking, TRF4100AZ
L896	23103859	Coil (Ferrite Bead), TEM2011
L897	23280016	Coil, Peaking, TRF4100AZ
⚠L901	23200215	Coil, Degaussing, TSB-2340AR
L902	23289101	Coil, Peaking, TRF4101AF
L903	23289101	Coil, Peaking, TRF4101AF
L904	23289101	Coil, Peaking, TRF4101AF
L905	23289390	Coil, Peaking, TRF4390AF
L906	23289390	Coil, Peaking, TRF4390AF
L907	23289390	Coil, Peaking, TRF4390AF
L908	23289100	Coil, Peaking, TRF4100AF
L910	23289479	Coil, Peaking, TRF44R7AF
LA01	23289100	Coil, Peaking, TRF4100AF
LB01	23262996	Coil, IF, TRF1169D
LQ01	23238709	Coil, Peaking, TRF4270AJ
LQ02	23238718	Coil, Peaking, TRF4479AJ
LQ03	23238718	Coil, Peaking, TRF4479AJ
LQ04	23238718	Coil, Peaking, TRF4479AJ
LT01	23289339	Coil, Peaking, TRF43R3AF
LT02	23238562	Coil, Peaking, TRF4109AJ
LT03	23289150	Coil, Peaking, TRF4150AF
LT04	23238714	Coil, Peaking, TRF4100AJ
LT05	23238714	Coil, Peaking, TRF4100AJ
LT06	23238714	Coil, Peaking, TRF4100AJ
LT07	23238714	Coil, Peaking, TRF4100AJ
LT08	23103859	Coil (Ferrite Bead), TEM2011
LT09	23238714	Coil, Peaking, TRF4100AJ
LT10	23238506	Coil, Peaking, TRF4229AJ
LT11	23238714	Coil, Peaking, TRF4100AJ
LT12	23238506	Coil, Peaking, TRF4229AJ
LT13	23238506	Coil, Peaking, TRF4229AJ
LT15	23238710	Coil, Peaking, TRF4220AJ
LV01	23103824	Coil, TEM2028K
LV02	23103824	Coil, TEM2028K (3350DE)
LV37	23289150	Coil, Peaking, TRF4150AF
LV40	23289829	Coil, Peaking, TRF48R2AF
LV41	23289829	Coil, Peaking, TRF48R2AF
LV42	23289100	Coil, Peaking, TRF4100AF
LV48	23238705	Coil, Peaking, TRF4560AJ
LZ01	23238712	Coil, Peaking, TRF4150AJ
LZ02	23238716	Coil, Peaking, TRF4689AJ
LZ03	23238716	Coil, Peaking, TRF4689AJ
LZ04	23238709	Coil, Peaking, TRF4270AJ
LZ05	23238716	Coil, Peaking, TRF4689AJ
LZ06	23238709	Coil, Peaking, TRF4270AJ
LZ07	23238709	Coil, Peaking, TRF4270AJ
LZ08	23238707	Coil, Peaking, TRF4390AJ
LZ09	70131060	Filter, ZBF253D-00
LZ10	70131060	Filter, ZBF253D-00
LZ11	23238709	Coil, Peaking, TRF4270AJ
⚠T401	23224336	Transformer, Horiz. Drive, TLN1083
⚠T461	23236447	Transformer, Flyback, TFB4115AR
⚠T801	23211002	Line Filter, TRF3173
⚠T802	23211002	Line Filter, TRF3173 (3350DE)
⚠T802	23211666	Line Filter, TRF3197 (3350DH)
⚠T862	23217337	Transformer, Converter, TPW3349AG

SEMICONDUCTORS

Q201	23314794	Transistor, 2PC1815Y
Q202	A6342206	Transistor, 2SC2878-A(TE
Q203	A6734590	Transistor, 2SC752(G)TM-Y
Q204	23314794	Transistor, 2PC1815Y
Q205	23314794	Transistor, 2PC1815Y
Q301	B0378560	IC, TA8427K
Q302	B0384625	IC, TA8859CP
Q370	23314791	Transistor, 2PA1015Y
Q402	A678971D	Transistor, 2SC1569 FA-5
⚠Q404	A6872801	Transistor, 2SD2253(FA)
Q420(U902A)	A6002040	Transistor, RN1204 (3350DE)
Q420(U903)	23314141	Transistor, 2SC3852 (3350DE)
Q421(U902A)	A6002040	Transistor, RN1204 (3350DE)
Q421(U903)	23314794	Transistor, 2PC1815Y (3350DE)
Q422	A6012030	Transistor, RN2203 (3350DE)
Q423	23314794	Transistor, 2PC1815Y (3350DE)
Q424	23314794	Transistor, 2PC1815Y (3350DE)
Q425	A6002040	Transistor, RN1204 (3350DE)
Q430	23314277	Transistor, 2SC2655Y-CN
Q460	23314850	Transistor, 2SA1788-E
Q461	23314794	Transistor, 2PC1815Y
Q462	23314794	Transistor, 2PC1815Y
Q470	23314794	Transistor, 2PC1815Y
Q501	B0385673	IC, TA1222AN
Q502	23314794	Transistor, 2PC1815Y
Q503	23314794	Transistor, 2PC1815Y
Q510	23314794	Transistor, 2PC1815Y
Q611	23314791	Transistor, 2PA1015Y
Q612	23314791	Transistor, 2PA1015Y
Q670	B0377307	IC, TA8256H
Q671	A6342206	Transistor, 2SC2878-A(TE
Q672	A6342206	Transistor, 2SC2878-A(TE
Q673	A6342206	Transistor, 2SC2878-A(TE
Q687	A6002040	Transistor, RN1204
Q705	23314794	Transistor, 2PC1815Y
Q706	23314794	Transistor, 2PC1815Y
Q707	A6734590	Transistor, 2SC752(G)TM-Y
Q709	23314794	Transistor, 2PC1815Y
Q710	23314791	Transistor, 2PA1015Y
Q711	23314701	Transistor, 2SA1186A
Q712	23314705	Transistor, 2SD1763A
Q719	23314794	Transistor, 2PC1815Y
Q720	23314794	Transistor, 2PC1815Y
⚠Q801	23905084	IC, STR-S6709
Q802	23314141	Transistor, 2SC3852
⚠Q826	A8645166	Photo Coupler, TLP721F(D4-G
Q830	23314141	Transistor, 2SC3852
Q831	23314141	Transistor, 2SC3852
Q840	23318299	IC, L78MR05
Q880	23314791	Transistor, 2PA1015Y
Q901	23314811	Transistor, 2SC5147
Q902	23314794	Transistor, 2PC1815Y
Q903	23314811	Transistor, 2SC5147
Q904	23314794	Transistor, 2PC1815Y
Q905	23314811	Transistor, 2SC5147
Q906	23314794	Transistor, 2PC1815Y
Q907	A6509154	Transistor, 2SA562TM-Y(T)
Q908	A6321265	Transistor, 2SC2120-Y(TE)
Q910	23314794	Transistor, 2PC1815Y
Q911	23314794	Transistor, 2PC1815Y
Q912	23314791	Transistor, 2PA1015Y
Q913	23314791	Transistor, 2PA1015Y
Q914	23314794	Transistor, 2PC1815Y
QA01	23905445	IC, TMP87CP38N-3276
QA02	23904666	IC, NM24C08EN
QB02	23314791	Transistor, 2PA1015Y
QB03	A6002050	Transistor, RN1205

Location No.	Part No.	Description
QB30	23314794	Transistor, 2PC1815Y
QG01	B0385643	IC, TA1216AN
QQ01	B0385755	IC, TA1229N
QQ02	B0383881	IC, TA8772AN
QQ03	23314794	Transistor, 2PC1815Y
QQ04	23314794	Transistor, 2PC1815Y
QR04	23314791	Transistor, 2PA1015Y
QR05	23314791	Transistor, 2PA1015Y
QR06	23314791	Transistor, 2PA1015Y
QS01	A6342206	Transistor, 2SC2878-A(TE
QS02	A6342206	Transistor, 2SC2878-A(TE
QS03	23314794	Transistor, 2PC1815Y
QS04	23314794	Transistor, 2PC1815Y
QS07	A6010040	Transistor, RN2004
QS08	A6342206	Transistor, 2SC2878-A(TE
QS09	23314794	Transistor, 2PC1815Y
QS10	A6342206	Transistor, 2SC2878-A(TE
QS11	23314794	Transistor, 2PC1815Y
QT01	23904899	IC, SAA5281ZP/E
QT02	23314794	Transistor, 2PC1815Y
QT03	23314794	Transistor, 2PC1815Y
QT04	23314791	Transistor, 2PA1015Y
QT05	23314794	Transistor, 2PC1815Y
QT06	23314791	Transistor, 2PA1015Y
QV01	B0385655	IC, TA1219N
QV03	23314794	Transistor, 2PC1815Y
QV04	23314794	Transistor, 2PC1815Y
QV05	23314791	Transistor, 2PA1015Y
QV06	23314791	Transistor, 2PA1015Y
QV07	A6002030	Transistor, RN1203
QV08	23314794	Transistor, 2PC1815Y
QV11	A6002030	Transistor, RN1203
QV13	23314794	Transistor, 2PC1815Y
QZ01	B0410687	IC, TC9090N
QZ02	23319504	IC, MM1031XS
QZ03	23314794	Transistor, 2PC1815Y
QZ04	23314794	Transistor, 2PC1815Y
QZ05	23314794	Transistor, 2PC1815Y
QZ06	23314794	Transistor, 2PC1815Y
D101	23316411	Diode, 1SS184
D201	23115599	Diode, 1N4148
D208	23115599	Diode, 1N4148
D301	23118094	Diode, EU2A
D302	23118479	Diode, BYD33J
D303	23316794	Diode, SC570A
D306	23115599	Diode, 1N4148
D308	23118822	Diode, ERB12-02
D309	23118822	Diode, ERB12-02
D370	23316666	Diode, Zener, MTZJ4.7B
D399	23316718	Diode, Zener, MTZJ12A
D406	23118479	Diode, BYD33J
D420	23316680	Diode, Zener, MTZJ7.5A
D423	23115599	Diode, 1N4148
D424	23115599	Diode, 1N4148
D430	23316670	Diode, Zener, MTZJ5.1C
D431	23115599	Diode, 1N4148
D433	23316670	Diode, Zener, MTZJ5.1C
D441	23316687	Diode, Zener, MTZJ9.1B
D442	A7568200	Diode, 1S1832
D460	23118479	Diode, BYD33J
D461	23316582	Diode, ERC20-06
D463	23115599	Diode, 1N4148
D464	23316718	Diode, Zener, MTZJ12A
D466	23316672	Diode, Zener, MTZJ5.6B

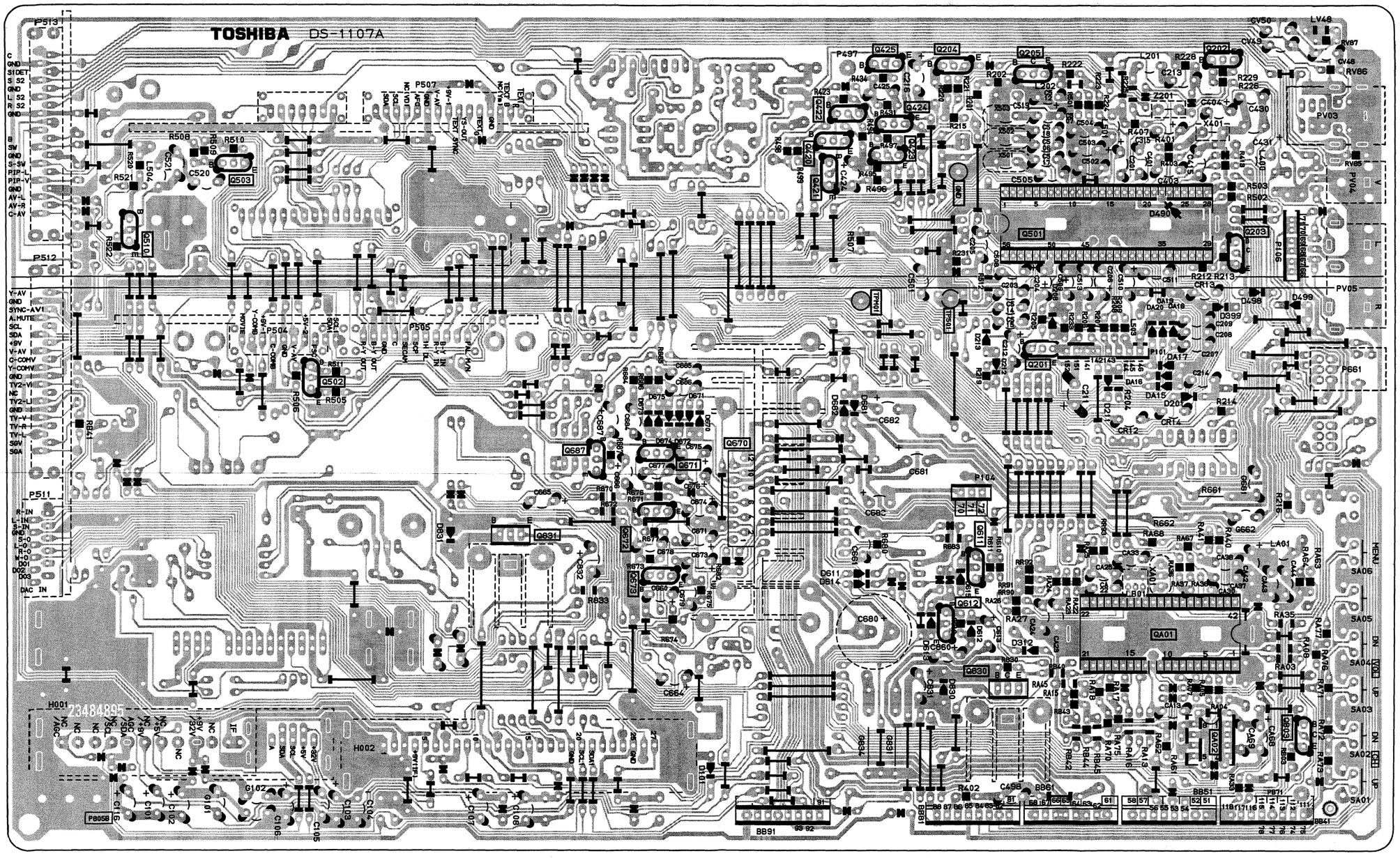
Location No.	Part No.	Description
D467	23118479	Diode, BYD33J
D468	23316718	Diode, Zener, MTZJ12A
D474	23316719	Diode, Zener, MTZJ12B
D490	23316718	Diode, Zener, MTZJ12A
D498	23316718	Diode, Zener, MTZJ12A
D499	23316718	Diode, Zener, MTZJ12A
D611	23115599	Diode, 1N4148
D612	23115599	Diode, 1N4148
D613	23115599	Diode, 1N4148
D614	23115599	Diode, 1N4148
D615	23115599	Diode, 1N4148
D670	23115599	Diode, 1N4148
D671	23115599	Diode, 1N4148
D674	23115599	Diode, 1N4148
D675	23115599	Diode, 1N4148
D681	23115599	Diode, 1N4148
D682	23115599	Diode, 1N4148
D704	23115599	Diode, 1N4148
D705	23115599	Diode, 1N4148
D706	A7568475	Diode, TVR-2D
D707	A7568475	Diode, TVR-2D
D715	23115599	Diode, 1N4148
D720	23115599	Diode, 1N4148
D721	23115599	Diode, 1N4148
D801	23316795	Diode, D6SB60L, F05
D802	23118479	Diode, BYD33J
D803	23118479	Diode, BYD33J
D804	23316678	Diode, Zener, MTZJ6.8B
D805	23115599	Diode, 1N4148
D806	23118479	Diode, BYD33J
D807	23118479	Diode, BYD33J
D808	23118479	Diode, BYD33J
D809	23316672	Diode, Zener, MTZJ5.6B
D810	23115599	Diode, 1N4148
D811	23115599	Diode, 1N4148
D812	23118338	Diode, RU4AM
D815	23316725	Diode, Zener, MTZJ15B
D828	23115599	Diode, 1N4148
D830	23316673	Diode, Zener, MTZJ5,6C
D831	23316673	Diode, Zener, MTZJ5,6C
D883	23316406	Diode, FML-G16S
D885	23316184	Diode, FML-G12S
D891	23118052	Diode, RU4Z
D892	23118052	Diode, RU4Z
D896	23118479	Diode, BYD33J
⚠D899	24000656	Varistor, 470V
D901	23115599	Diode, 1N4148
D903	23115599	Diode, 1N4148
D904	23115599	Diode, 1N4148
D905	23115599	Diode, 1N4148
D906	23115599	Diode, 1N4148
D907	23115599	Diode, 1N4148
D908	23115599	Diode, 1N4148
D909	23115599	Diode, 1N4148
D910	23115599	Diode, 1N4148
D911	23118094	Diode, EU2A
DB01	23358505	LED, SLR56VC196F
DB02	23358503	LED, SCL003MC3FX
DB03	23358522	LED, SIR-56SB3F
DB30	23115599	Diode, 1N4148
DV01	23316687	Diode, Zener, MTZJ9.1B
DV02	23316687	Diode, Zener, MTZJ9.1B
DV03	23316687	Diode, Zener, MTZJ9.1B
DV04	23316687	Diode, Zener, MTZJ9.1B

Location No.	Part No.	Description
DV10	23115599	Diode, 1N4148
DV19	23316687	Diode, Zener, MTZJ9.1B
DZ01	23118622	Diode, Zener, RD10ESA B2
MISCELLANEOUS		
⚠F470	23144873	Fuse, 1.0A
F470A	23165431	Holder, Fuse
F470B	23165431	Holder, Fuse
⚠F801	23144508	Fuse, 4.0A
F801A	23165433	Holder, Fuse
⚠F802	23144508	Fuse, 4.0A
F802A	23165431	Holder, Fuse
F802B	23165431	Holder, Fuse
G101	23221803	Coil, Choke, TLN3040D
G103	23238714	Coil, Peaking, TRF4100AJ
G104	23238714	Coil, Peaking, TRF4100AJ
G371	23115599	Diode, 1N4148
G661	24668330	EL, 33μF, ±20%, 35V
G662	24668330	EL, 33μF, ±20%, 35V
G831	24546479	FR, 4.7 ohm, 1/2W
G834	23144536	Protector, PRF10005491, 125V, 1A
G812	23103859	Coil (Ferrite Bead), TEM2011
H002	23148231	Module, MVCS43, IF/MPX (3350DE)
H002	23148244	Module, MVCS43B, IF/MPX (3350DH)
KB01	23904946	Remote Sensor, RPM-676CBR-S
P661	23363607	Headphone Jack, 3.5mm
⚠P801	23372015	Power Cord (3350DE)
⚠P801	23372023	Power Cord (3350DH)
PV03	23365546	Jack, 2C-2P
PV04	23363252	Pin Jack, Yellow
PV05	23365508	Jack, Phono
⚠S801	23344395	Switch, Power
SA01	23145430	Switch, Push, 1C1P
SA02	23145430	Switch, Push, 1C1P
SA03	23145430	Switch, Push, 1C1P
SA04	23145430	Switch, Push, 1C1P
SA05	23145430	Switch, Push, 1C1P
SA06	23145430	Switch, Push, 1C1P
⚠SR81	23146935	Relay, AC120V
⚠V901A	23902891	Socket, CRT, 10P
W661	23351116	Speaker, SPK-1382, 60x120mm, 8 ohm
W662	23351116	Speaker, SPK-1382, 60x120mm, 8 ohm
W665	23351080	Speaker, SPK-1352, 100x100mm, 6 ohm
X401	23153721	Ceramic Resonator, 503kHz, TCR1023
X501	23153961	Crystal, 3.58MHz
X503	23153979	Crystal, 4.43MHz
XA01	23153325	Ceramic Resonator, 8.00M, TCR1056
XQ01	23153969	Crystal, 4MHz
XT01	23153457	Crystal, 27MHz
Z201	23107519	Ceramic Video Trap, 4.43MHz, TCF1066
Z424	23144539	Protector, PRF20005491, 125V, 2A
Z801	23904998	IC, HIC1016

Location No.	Part No.	Description
⚠Z889	23144543	Protector, PRF50005491, 125V, 5A
⚠Z890	23144543	Protector, PRF50005491, 125V, 5A
⚠Z891	23144543	Protector, PRF50005491, 125V, 5A
PC BOARD ASSEMBLIES		
* U901	23705141	CRT Drive/DSM Board, PB6154X
* U902A	23705142	Signal Board, PB6155F (3350DE)
* U902A	23705208	Signal Board, PB6155L (3350DH)
* U903	23705143	Power/DEF Board, PB6156F (3350DE)
* U903	23705205	Power/DEF Board, PB6156L (3350DH)
* U904	23705144	Back/AV Board, PB6157F (3350DE)
* U904	23705206	Back/AV Board, PB6157L (3350DH)
* U905	23705145	Comb/SECAM Board, PB6158F
* U906	23705148	Text Board, PB6161F (3350DE)
* U907	23705147	Power-2 Board, PB6160F (3350DE)
* U907	23705207	Power-2 Board, PB6160L (3350DH)
PICTURE TUBE		
⚠V901	23312653	Picture Tube, A80EFF002X11
TUNER		
H001	23321194	Tuner, EC427L
ACCESSORIES		
K902	23306136	Remote Hand Unit, CT-9832 (3350DE)
K902	23306137	Remote Hand Unit, CT-9833 (3350DH)
AT03	23305255	Battery Cover
Y101	23562662	Owner's Manual, English, 3350DE
Y102	23562703	Owner's Manual, Hongkong, 3350DH

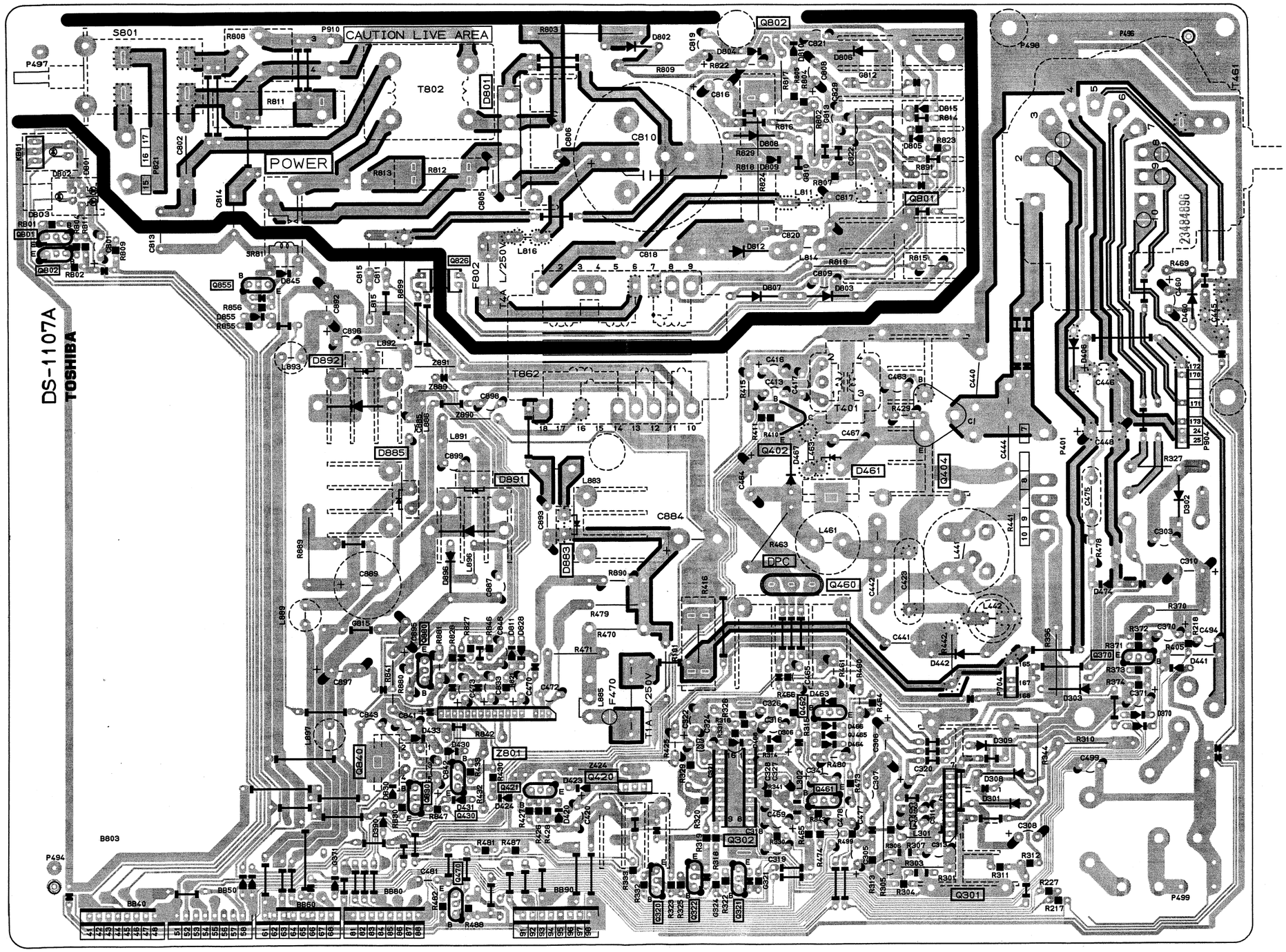
SIGNAL BOARD PB6155F (3350DE)
PB6155L (3350DH)

BOTTOM (FOIL) SIDE



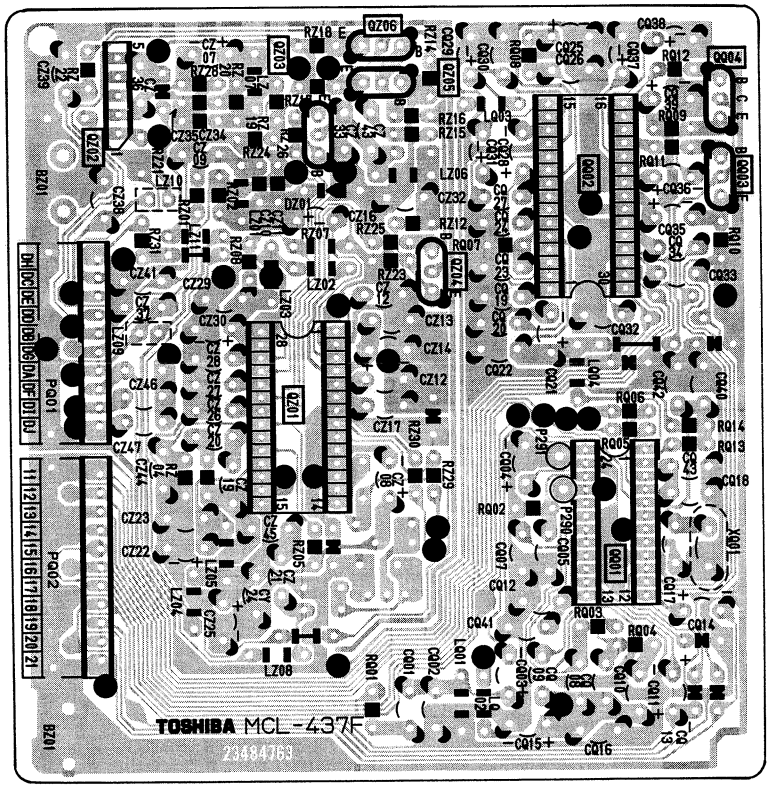
POWER/DEF BOARD PB6156F (3350DE) PB6156L (3350DH)

BOTTOM (FOIL) SIDE



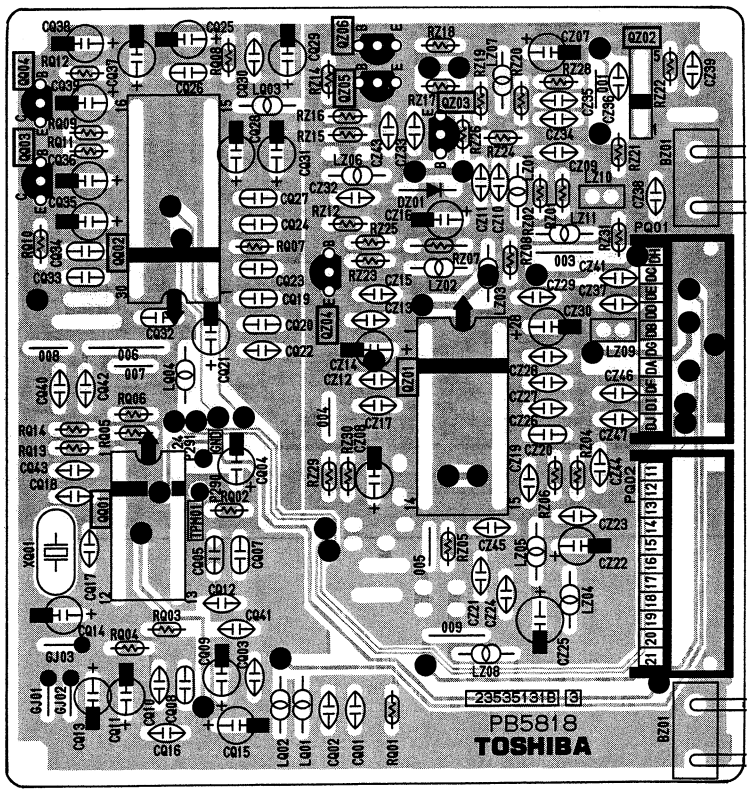
COMB/SECAM BOARD PB6158F

BOTTOM (FOIL) SIDE



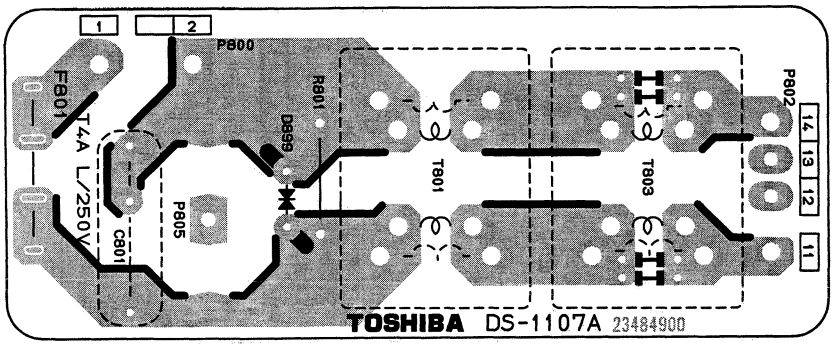
COMB/SECAM BOARD PB6158F

TOP (PARTS) SIDE



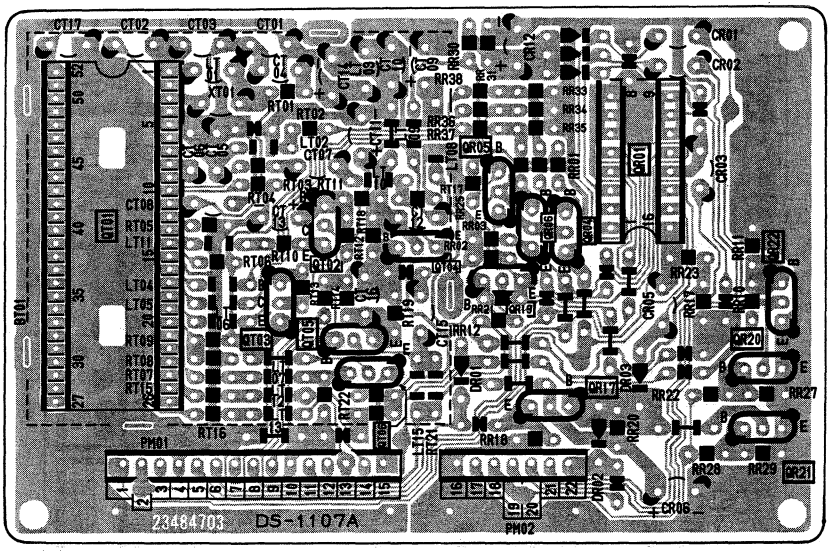
AC INPUT BOARD PB6160F (3350DE)
PB6160L (3350DH)

BOTTOM (FOIL) SIDE



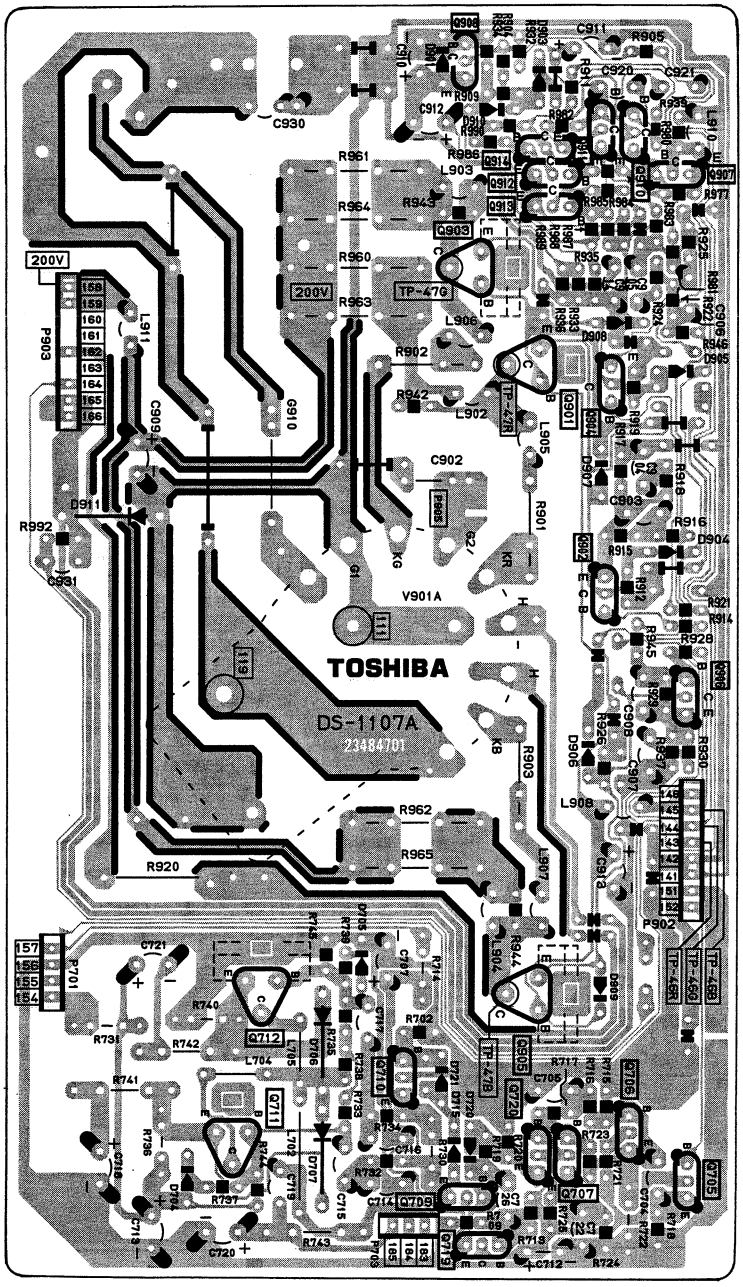
TEXT/RGB SW BOARD PB6161F (3350DE)

BOTTOM (FOIL) SIDE



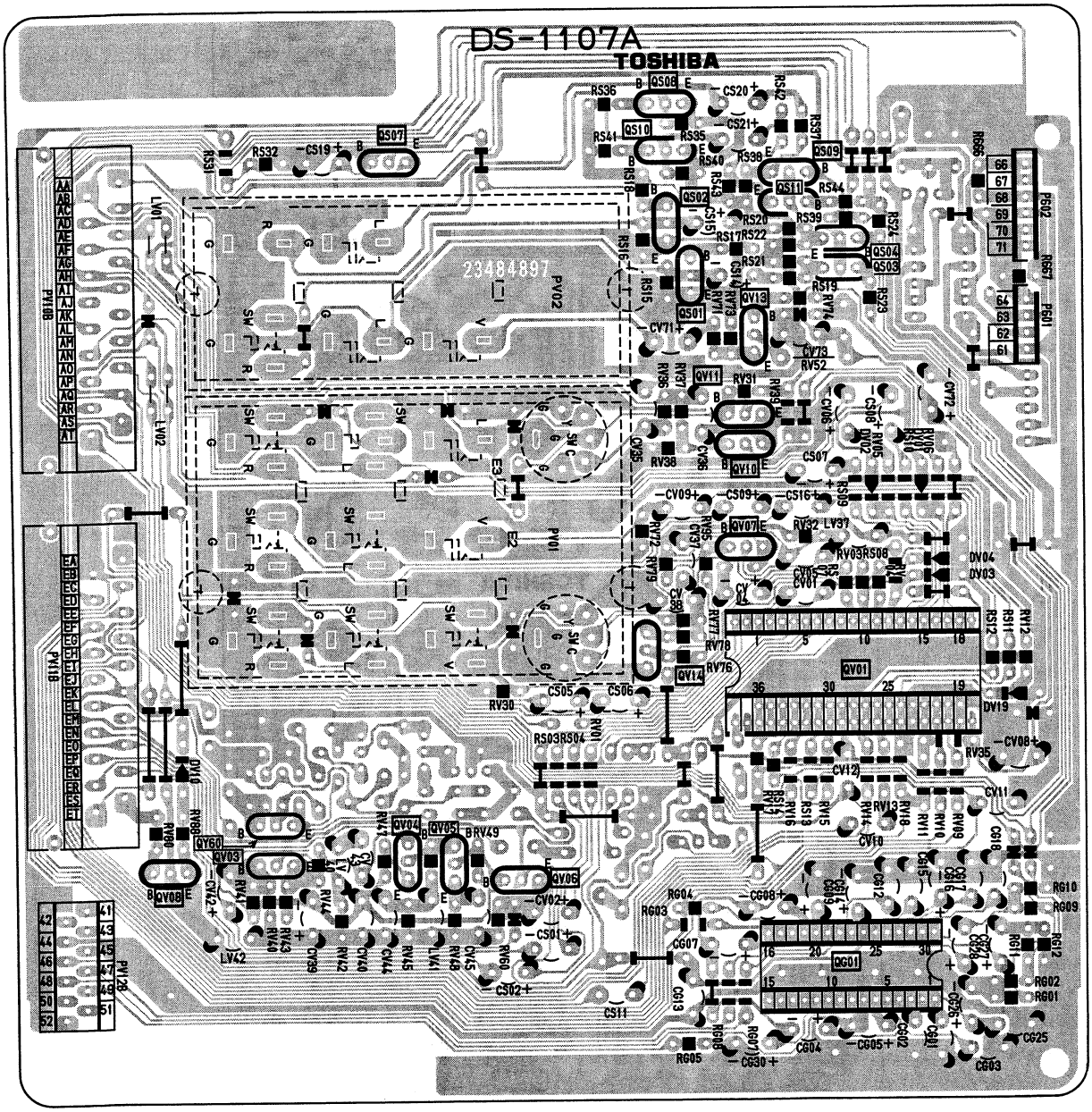
CRT.D/VM BOARD PB6154X

BOTTOM (FOIL) SIDE



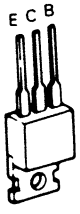
BACK TERMINAL/AV BOARD PB6157F (3350DE) PB6157L (3350DH)

BOTTOM (FOIL) SIDE

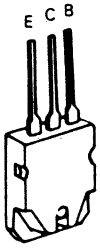


TERMINAL VIEW OF TRANSISTORS

① 2SC1569



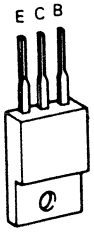
② 2SC3927(A)



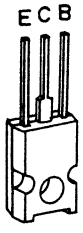
③ 2SC2580-C
2SC2655

④ 2SA933S
2SA1015-Y
2SA1320-Y
2SC752GTM
2SC1685-Q
2SC1740S
2SC1815-N
2SC1959-Y
2SC2120-Y
2SC2878-A

⑤ 2SB1186A
2SC3852
2SD2253

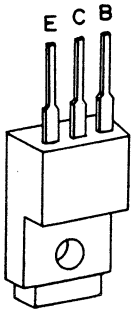


⑥ 2SC3619



⑦ RN1203
RN1204
RN1206
RN2004

⑧ 2SB1186A
2SD1763A



MEMO

SCHEMATIC DIAGRAM MODEL: 3350DE : 3350DH (1/3)

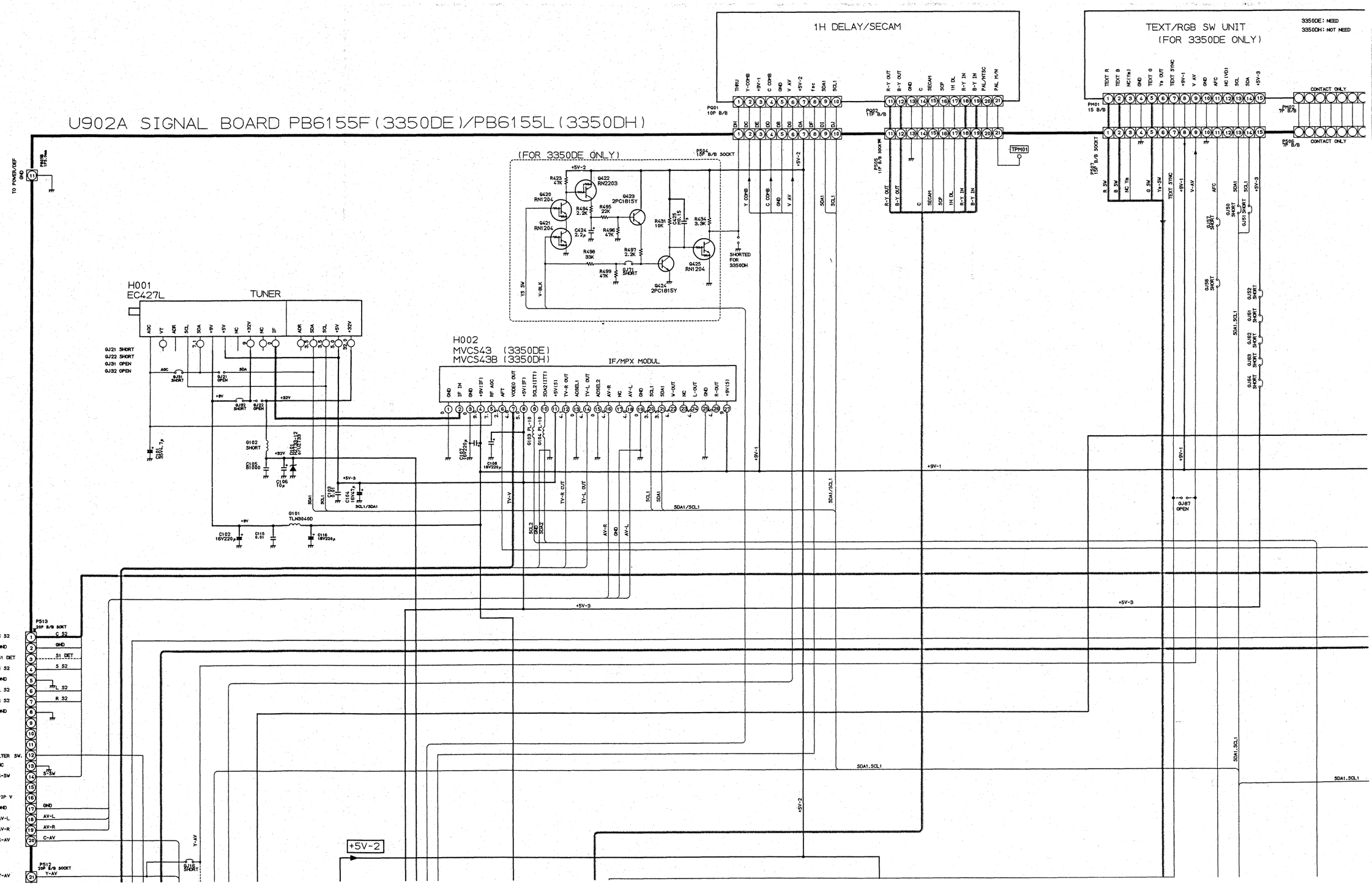
CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

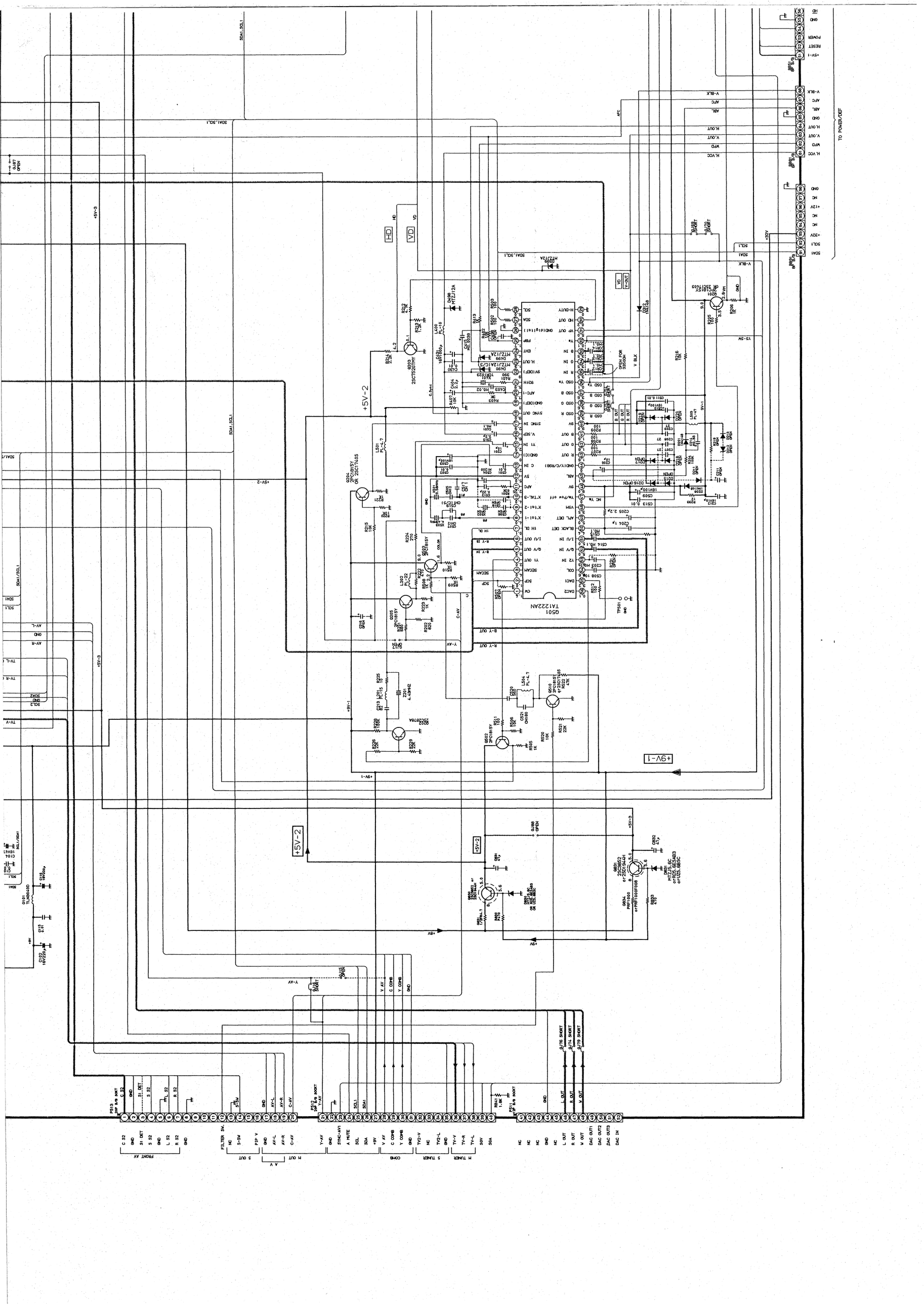
OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

1. D.C. resistance value of a principal gram. These are measured for separa
2. The circuits are subject to change wit
3. ● : Solder links.




TO POWER/DEF
H.VCC
WPD
V.OUT
H.OUT
GND
ABL
AFC
V-BLK
SCL1
SDA1
+12V
+32V
+5V-1
RESET
POWER
HD
VD
+5V-2
+5V-3
+9V-1
+8V
+32V
TA1222AN
G501
SDA1,SCL1
FRONT AV
S OUT
A V
M OUT
COMB
S TUNER
M TUNER
FILTER 5V
C S2
S1 DET
S S2
L S2
R S2
P1P V
AV-L
AV-R
C-AV
Y-AV
SYNC-AV
A MUTE
SCL
SDA
+5V
V AV
C COMB
Y COMB
TV2-V
TV2-L
TV-V
TV-R
TV-L
SOV
L OUT
R OUT
V OUT
DAC OUT1
DAC OUT2
DAC OUT3
DAC IN

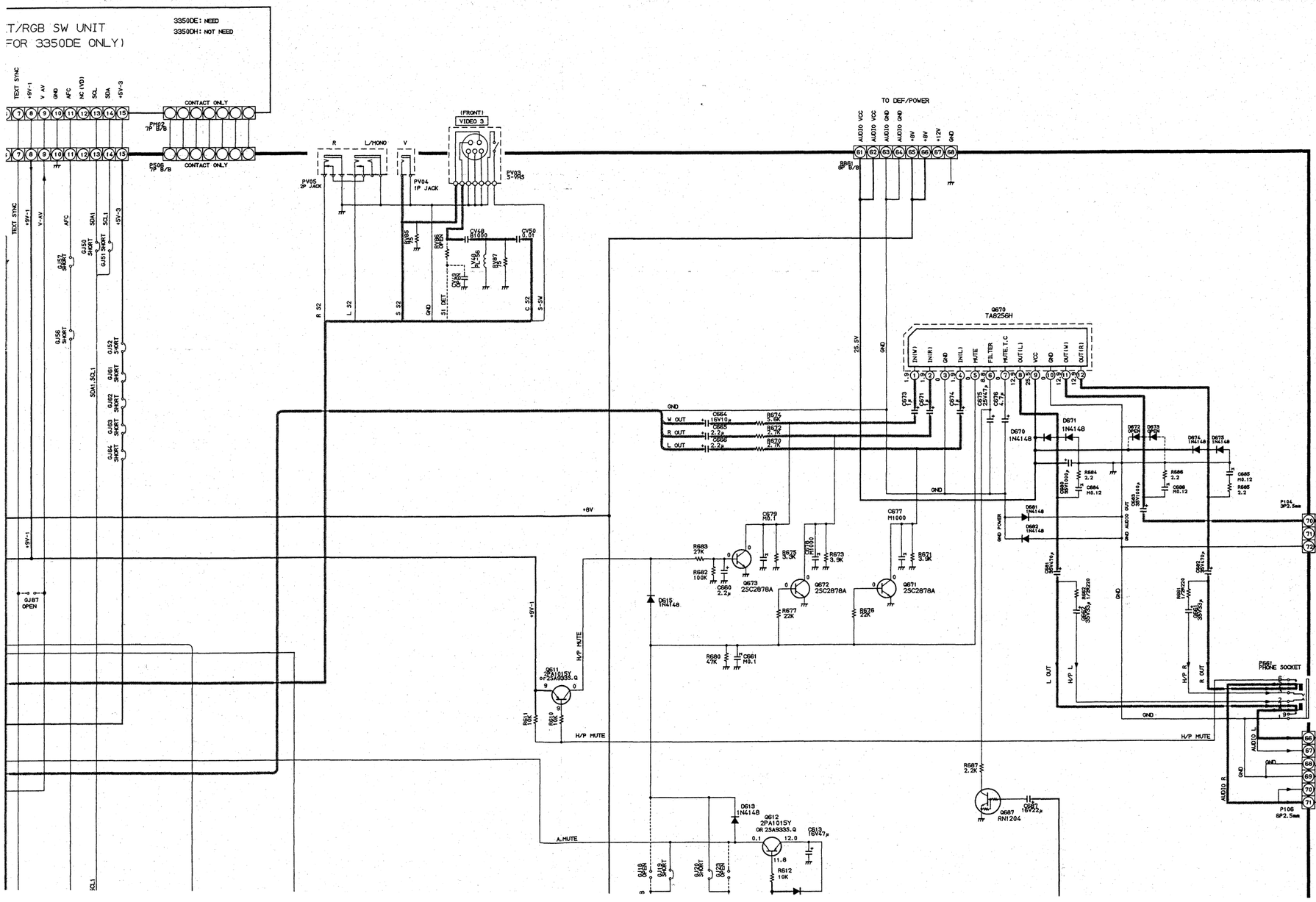
OTES:

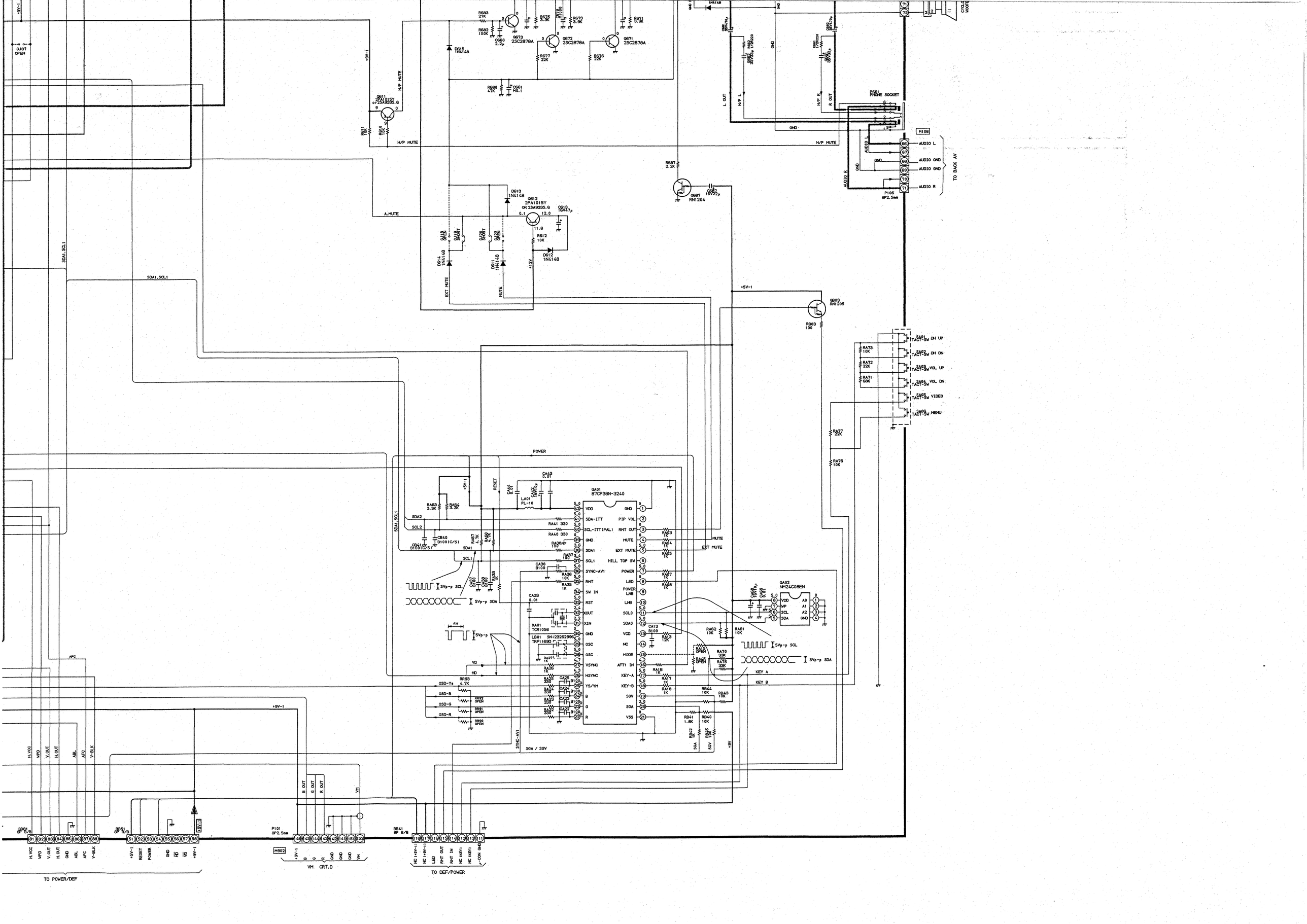
D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
The circuits are subject to change without notice.
⬬ : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.



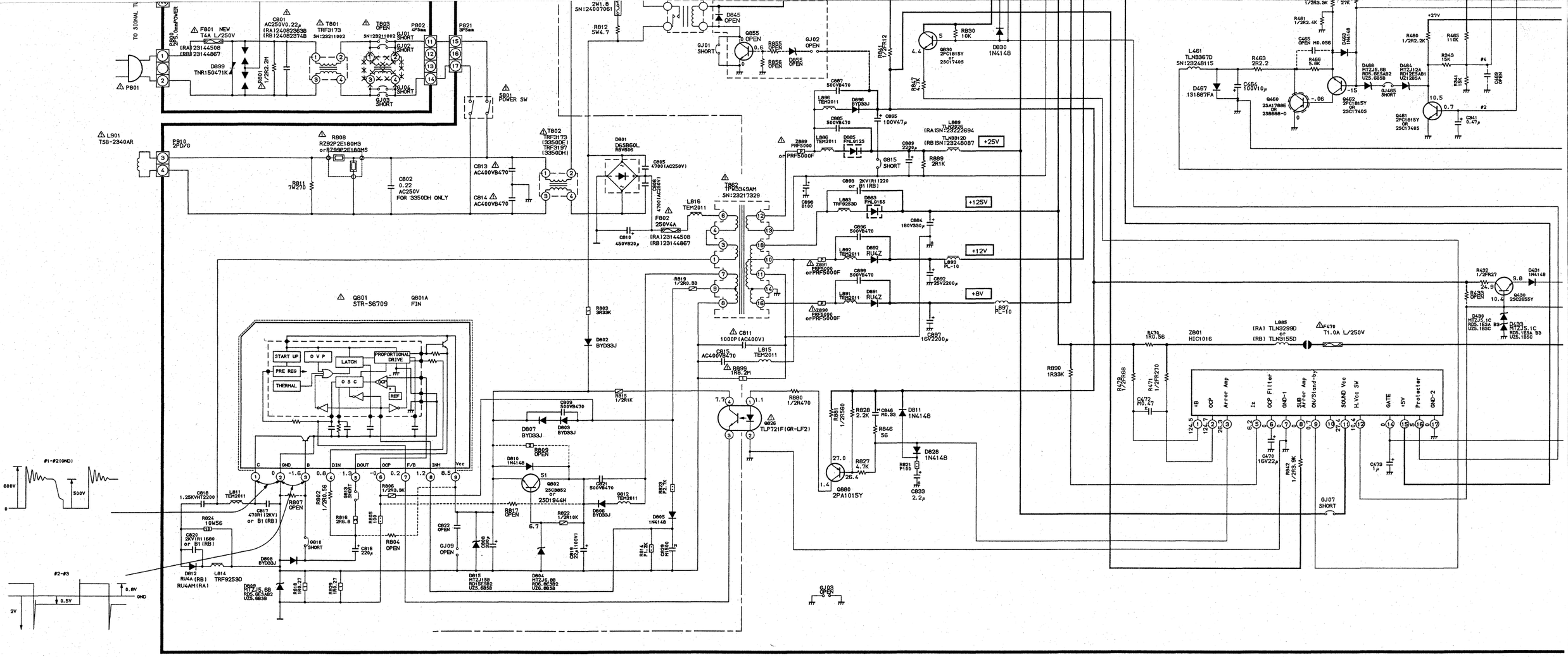

+5V-1
OJ57 OPEN
R683 27K
R682 100K
C660 2.2μ
Q673 2SC2878A
R675 3.3K
R674 3.9K
R673 3.9K
R672 2SC2878A
R677 22K
R671 3.3K
Q671 2SC2878A
R676 22K
D615 1N4148
R680 47K
C661 H0.1
H/P MUTE
Q611 2PA1015Y OR 2SA9335.Q
R611 10K
R610 10K
D613 1N4148
Q612 2PA1015Y OR 2SA9335.Q
C612 16V47μ
0.1
12.0
11.8
R612 10K
D612 1N4148
A.MUTE
R618 SHORT
R619 SHORT
R620 SHORT
R623 OPEN
D614 1N4148
D611 1N4148
EXT MUTE
MUTE
+12V
R687 2.2K
Q687 RN1204
C687 16V22μ
L OUT
R OUT
GND
PS61 PHONE SOCKET
M106
AUDIO L
AUDIO GND
AUDIO GND
AUDIO R
TO BACK AV
P106 8P2.5mm
SDA1, SCL1
Q693 RN1205
R803 100
SA01 TACT-SW CH UP
SA02 TACT-SW CH DN
SA03 TACT-SW VOL UP
SA04 TACT-SW VOL DN
SA05 TACT-SW VIDEO
SA06 TACT-SW MENU
RA73 10K
RA72 22K
RA71 68K
RA77 22K
RA76 10K
POWER
RESET
C443 0.01
C444 0.01
C442 16V10μ
LA01 PL-10
QA01 B7CP38N-3240
SDA2
SCL2
SDA1
SCL1
RA41 330
RA40 330
RA38 100
RA37 100
RA36 10K
RA35 1K
RA83 3.3K
RA84 3.3K
RA87 4.7K
RA88 4.7K
RA89 1K
CB40 B100(C/S)
CB41 B100(C/S)
CA30 B100
CA33 0.01
5Vp-p SCL
5Vp-p SDA
1H
5Vp-p
VD
HD
XA01 TCR105S
LB01 SN:2326296
TRP11690
RA21 1K
RA26 1K
RA25 330
RA24 330
RA23 330
RA22 330
CA25 B100
CA24 B100
CA23 B100
CA22 B100
RR93 4.7K
RR92 OPEN
RR91 OPEN
RR90 OPEN
OSD-Ys
OSD-B
OSD-G
OSD-R
SYNC-AV1
SDA / SDV
MUTE
EXT MUTE
POWER
HILL TOP SW
LED
POWER LNB
LNB
XOUT
XIN
VCD
NC
MODE
AFT1 IN
KEY-A
KEY-B
SDV
SDA
VSS
QA02 NM24C08EN
CA68 16V10μ
CA67 0.01
CA13 B100
RA13 1.2K
RA62 10K
RA61 10K
RA69 OPEN
RA68 OPEN
RA70 33K
RA75 33K
RA16 1K
RA17 1K
RA18 1K
KEY A
KEY B
RB44 10K
RB43 10K
RB41 1.8K
RB40 10K
RB42 10K
RB45 10K
+5V
AFC
H.VCC
WPD
V.OUT
H.OUT
ABL
AFC
V-BLK
B OUT
G OUT
R OUT
VM
BB81 8P B/B
BB51 8P B/B
CB42
P101 8P2.5mm
H902
BB41 8P B/B
RESET
POWER
GND
HD
VD
+5V-1
VM CRT.D
NC (+5V-1)
NC (+5V-1)
LED
RMT OUT
RMT IN
NC (HEAT)
NC (HEAT)
-CON GND
TO POWER/DEF
TO DEF/POWER

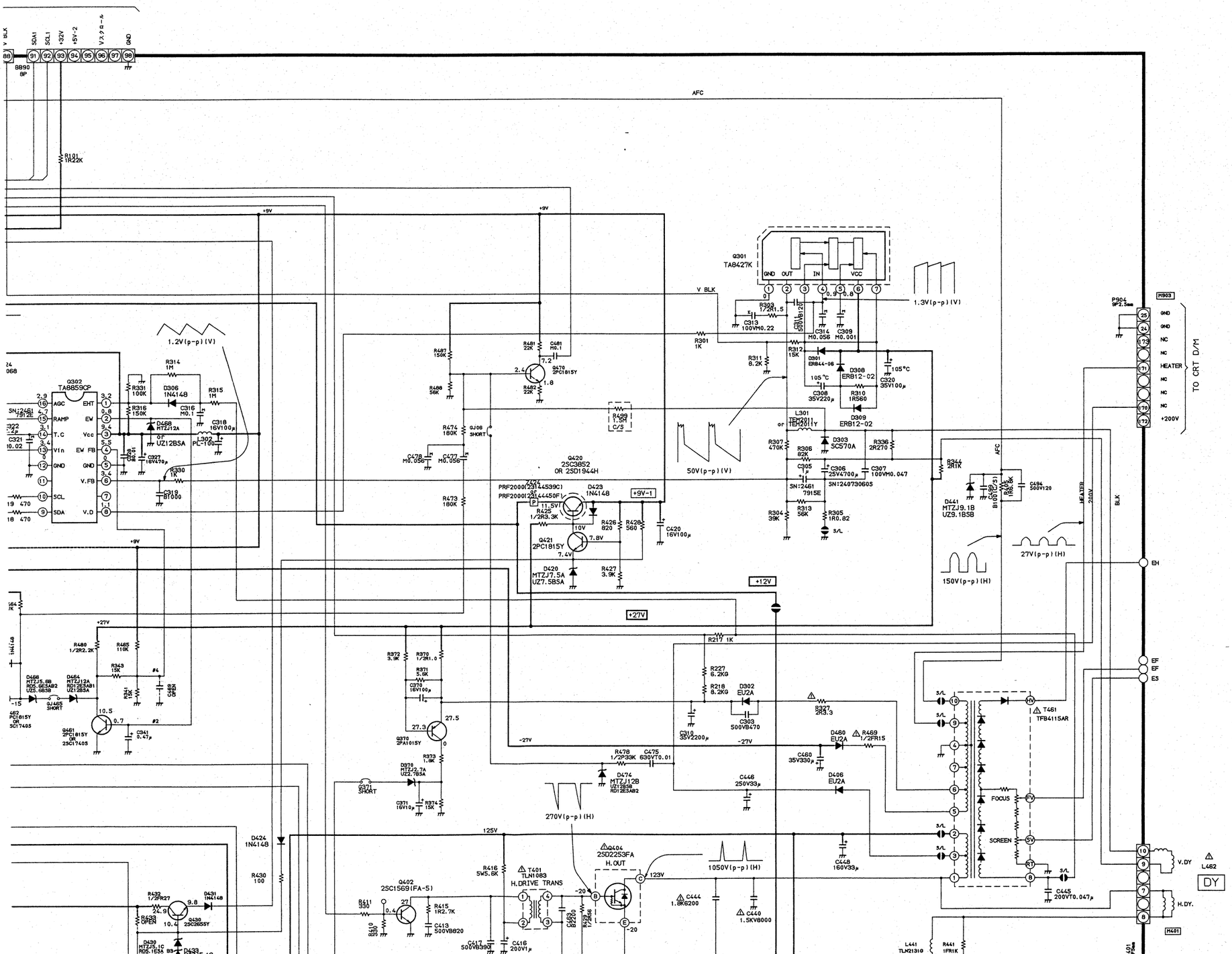
SCHEMATIC DIAGRAM MODEL: 3350DE : 3350DH (2/3)

U903 POWER/DEF BOARD PB6156F(3350DE)/PB6156L(3350DH)

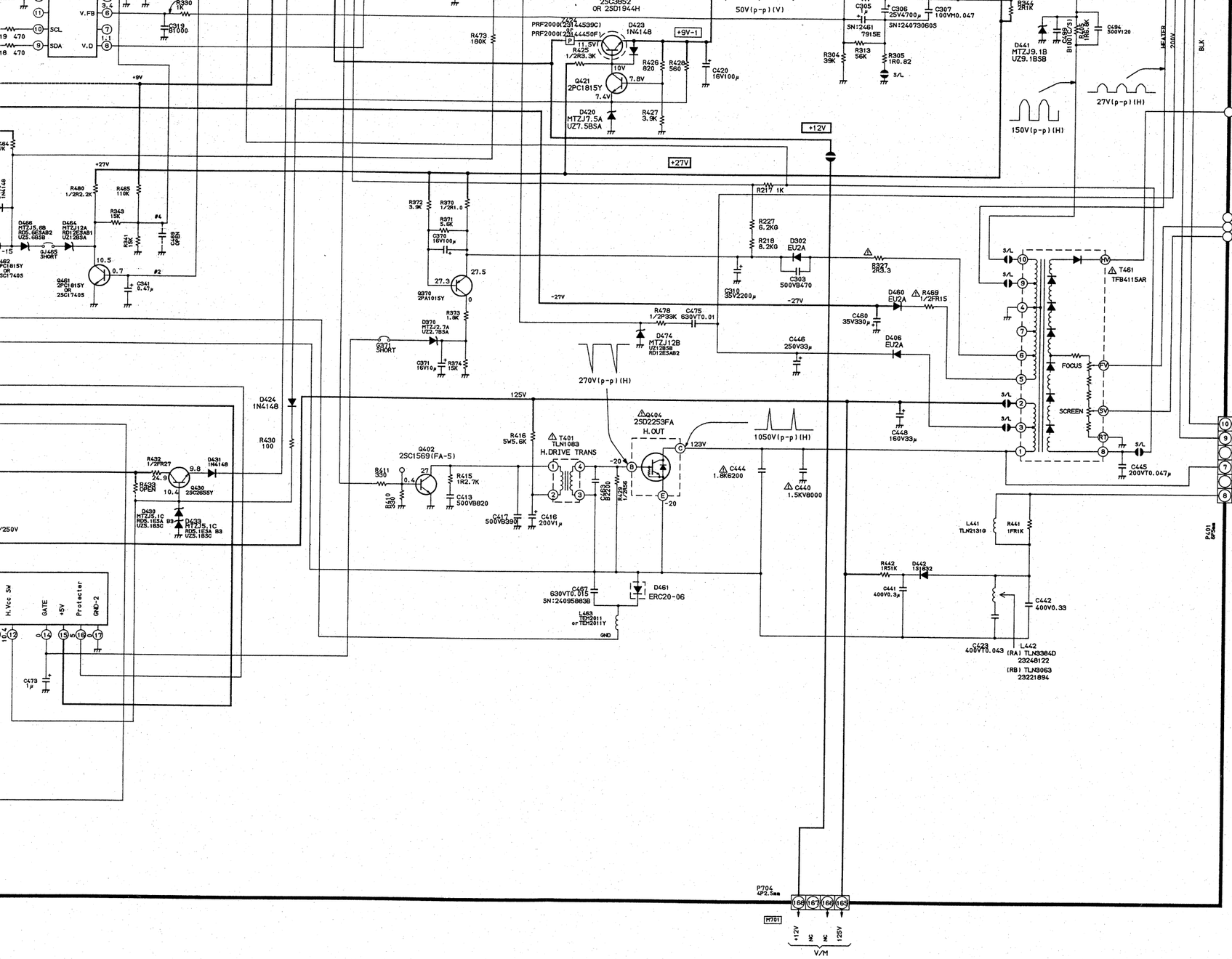
TO JUSIN

U907 POWER-2 BOARD PB6160F/L


Q801 STR-S6709
Q801A FIN
START UP
O V P
PRE REG
THERMAL
O S C
LATCH
PROPORTIONAL DRIVE
C GND B DIN DOUT OCP F/B INH Vcc
0 -1.6 0.8 1.3 -0 0.2 1.2 8.5
#1-#2(GND)
800V
500V
0
#2-#3
0.8V
0.5V
GND
2V
TO SIGNAL T
P800 2PS/C DegPOWER
P801
F801 NEW T4A L/250V
(RA)23144508
(RB)23144867
D899 TNR15G471K
R801 1/2R2.2H
C801 AC250V0.22μ (RA)2408236368 (RB)2408237468
T801 TRF3173 SN:23211002
T803 OPEN
P802 4PSaa
P821 3PSaa
GJ01 SHORT
GJ02 SHORT
GJ03 SHORT
GJ04 SHORT
S801 POWER SW
L901 TSB-2340AR
P810 2PD/G
R808 RZ92P2E180M3 or RZ89P2E180M5
R811 1W270
C802 0.22 AC250V FOR 3350DH ONLY
T802 TRF3173 (3350DE) TRF3197 (3350DH)
C813 AC400VB470
C814 AC400VB470
D801 D6SB60L R6V606
C805 4700(AC250V)
C810 450V820μ
FB02 250V4A (RA)23144508 (RB)23144867
T802 TPD3349AM SN:23217329
C811 1000P(AC400V)
C815 AC400VB470
R895 1R8.2H
R819 1/2R0.33
R803 3R33K
D802 BYD33J
R815 1/2R1K
D807 BYD33J
D809 BYD33J
D810 1N4148
R809 OPEN
Q802 2SC3852 or 2SD1944H
C821 500VB470
D812 TEM2011
D806 BYD33J
D805 1N4148
R823 P2.7K
R817 OPEN
R822 1/2R10K
6.7
C819 22μ(100V)
D814 RD6.8ES2 UZ6.8B3B
R814 P2K
C819 M1000
D815 HTZJ15B RD15ES2 UZ15.6B3B
C822 OPEN
GJ09 OPEN
C818 1.25KVHT2200
L811 TEM2011
C817 470R1(2KV) or B1(RB)
R807 OPEN
R824 10W56
C820 2KV(R1)680 or B1(RB)
D812 RU4A(RB) RU4AM(RA)
L814 TRF9253D
D808 BYD33J
R806 1/2R3.3K
R805 100
R804 OPEN
C816 220μ
Q810 SHORT
R816 2R6.8
R812 5W4.7
D845 OPEN
Q855 OPEN
GJ01 SHORT
R855 OPEN
R856 OPEN
GJ02 OPEN
R861 1R2
Q830 2PC1815Y or 2SC17405
R930 10K
D830 1N4148
C897 500VB470
L896 TEM2011
D896 BYD33J
C895 100V47μ
C885 500VB470
L886 TEM2011
D885 PSL0125
L889 TLN3229D (RA)SN:23222694 (RB)SN:23248087
T802 TLN3312D
+25V
Z889 PRF5000 or PRF5000F
C809 220μ
Q815 SHORT
R889 2R1K
C893 2KV(R1)220 or B1(RB)
C898 B100
L893 TRF9253D
D893 PSL0125
+12V
C894 160V330μ
C896 500VB470
L892 TEM2011
D892 RU4Z
Z891 PRF5000 or PRF5000F
C892 25V2200μ
L893 PL-10
C899 500VB470
L891 TEM2011
D891 RU4Z
+8V
Z890 PRF5000 or PRF5000F
L897 PL-10
C897 16V2200μ
R890 1R33K
R880 1/2R470
Q826 TLP721F(GR-LF2)
R881 1/2R560
R828 2.2K
C846 R0.33
D811 1N4148
R846 56
R827 4.7K
R821 P100
C833 2.2μ
Q860 2PA1015Y
D828 1N4148
GJ08 OPEN
L461 TLN3367D SN:23248115
R463 2R2.2
D467 1S1887FA
C464 100V10μ
Q460 2SA1786E or 2SB688-O
R468 5.6K
C465 OPEN M0.056
D459 1N4148
R480 1/2R2.2K
R481 1/2R2.4K
R465 11K
R343 15K
D466 HTZJ12.5B RD5.6ES4B2 UZ5.6B3B
D464 HTZJ12A RD12ES4B1 UZ12B5A
R341 15K
C462 2SC17405
C461 0.47μ
C459 0.56
Q461 2PC1815Y or 2SC17405
GJ465 SHORT
+27V
R432 1/2R27
D431 1N4148
R429 OPEN
Q430 2SC2655Y
D430 HTZJ5.1C RD5.1ES4B3 UZ5.1B3C
D433 RT2J5.1C RD5.1ES4B3 UZ5.1B3C
L885 (RA1 TLN3299D or (RB) TLN3155D
F470 T1.0A L/250V
R470 1R0.56
Z801 HIC1016
R478 1/2R68
R471 1/2R270
C472 M0.27
+B
OCP
Error Amp
Iz
OCP Filter
GND-1
SUB Error Amp
ON/Stand-by
SOUND Vcc
H.Vcc SW
GATE
+5V
Protecter
GND-2
124.5
124.7
26.3
5.2
2.4
C476 16V22μ
C479 1μ
R842 1/2R3.3K
GJ07 SHORT


V BLK
SDA1
SCL1
+32V
+5V-2
V.スクロール
GND
88
91
92
93
94
95
96
97
98
8B90
8P
AFC
R101
1R22K
+9V
+9V
V BLK
Q301
TA8427K
GND
OUT
IN
VCC
1
2
3
4
5
6
7
0.9
0.8
1.3V(p-p)(V)
R303
1/2R1.5
C313
100VM0.22
C311
500VB120
C314
M0.056
C309
M0.001
R301
1K
R312
15K
D301
ERB44-06
D308
ERB12-02
105℃
C320
35V100μ
105℃
C308
35V220μ
R310
1R560
R311
8.2K
L301
TBP201I
or
TBP201Y
D309
ERB12-02
R307
470K
R306
82K
D303
SC570A
R336
2R270
C305
1
C306
25V4700μ
C307
100VM0.047
SN:2461
7915E
SN:2407306O5
R304
39K
R313
56K
R305
1R0.82
S/L
R344
2R1K
AFC
D441
MTZJ9.1B
UZ9.1BSB
C494
500V120
HEATER
200V
BLK
27V(p-p)(H)
150V(p-p)(H)
P904
9P2.5mm
H903
25
24
23
22
21
20
19
GND
GND
NC
NC
HEATER
NC
NC
NC
+200V
TO CRT D/M
EH
EF
EF
ES
R481
22K
C481
M0.1
7.2
2.4
Q470
2PC1815Y
1.8
R482
22K
R480
56K
R488
C/S
R487
150K
R474
180K
6J06
SHORT
R473
180K
C478
M0.056
C477
M0.056
Q420
2SC3852
OR 2SD1944H
Q421
PRF2000(2)44539C)
PRF2000(2)44450F)
D423
1N4148
+9V-1
11.5V
10V
7.8V
7.4V
R425
1/2R3.3K
R426
820
R428
560
C420
16V100μ
D420
MTZJ7.5A
UZ7.5BSA
R427
3.9K
+12V
+27V
R217 1K
R227
6.2KG
R218
8.2KG
D302
EU2A
C303
500VB470
C310
35V2200μ
R347
2R3.3
-27V
C460
35V330μ
D460
EU2A
R469
1/2FR15
D406
EU2A
C446
250V33μ
C448
160V33μ
R478
1/2P33K
C475
630VT0.01
D474
MTZJ12B
UZ12B5B
RD12E3A82
C371
SHORT
R372
3.9K
R370
1/2R1.0
R371
5.6K
C370
16V100μ
27.3
27.5
Q370
2PA101SY
R373
1.8K
D370
MTZJ2.7A
UZ2.7B5A
C371
16V10μ
R374
15K
270V(p-p)(H)
125V
D424
1N4148
R430
100
R416
5W5.6K
T401
TLN1083
H.DRIVE TRANS
Q404
2SD2253FA
H.OUT
123V
-20
1050V(p-p)(H)
C444
1.5KV8200
C440
1.5KV8000
Q402
2SC1569(FA-5)
R411
330
R415
1R2.7K
C413
500VB820
C417
500VB390
C416
200V1μ
R418
5W1.5K
R419
5W1.5K
R432
1/2FR27
D431
1N4148
R433
OPEN
Q430
2SC2655Y
D430
MTZJ5.1C
RD5.1E5B
D433
T461
TFB4115AR
FOCUS
SCREEN
FV
SV
R1
R2
C445
200VT0.047μ
V.DY
L462
DY
H.DY.
H401
L441
TLN2131G
R441
1FR1K
Q302
TA8859CP
AGC
RAMP
T.C
Vin
GND
SCL
SDA
EHT
EW
Vcc
EW FB
GND
V.FB
V.D
R314
1M
R331
100K
D306
1N4148
R315
1M
R316
150K
C316
M0.1
D468
HTZJ12A
or
UZ12BSA
L302
PC-100
C318
16V100μ
C321
10.02
C308
B0.01
C327
16V470μ
R330
1K
C319
B100
1.2V(p-p)(V)
R480
1/2R2.2K
R485
110K
R343
15K
D466
MTZJ5.6B
RD5.6E5AB2
UZ5.6B5B
D454
MTZJ12A
RD12E5AB1
UZ12B5A
C341
0.47μ
Q461
2PC1815Y
OR
2SC17405
10.5
0.7
#2
#4
C342
B0.01
R342
1M
C343
B0.01
0J465
SHORT
R462
PC1815Y
OR
2SC17405
R217 1K

V BLK
SDA1
SCL1
+32V
+5V-2
V.A.フョート
GND
88 91 92 93 94 95 96 97 98
BB90 8P
AFC
R101 1R22K
+9V
+9V
Q301 TA8427K
GND OUT IN VCC
1 2 3 4 5 6 7
0 0.9 0.8
1.3V(p-p)(V)
V BLK
R303 172R1.5
C313 100VM0.22
C311 50VB120
C314 M0.056
C309 M0.001
R301 1K
R311 8.2K
R312 15K
D301 ERB44-06
D308 ERB12-02
105℃
C320 35V100μ
105℃
C308 35V220μ
R310 1R560
D309 ERB12-02
L301 TEP201-1Y or TEP201-1V
D303 SC570A
R307 470K
R306 82K
C305 1μ
C306 25V4700μ
C307 100VM0.047
SN:2401730605
SN:2461 7915E
R313 56K
R304 39K
R305 1R0.82 3/L
R344 2R1K
AFC
D441 MTZJ9.1B UZ9.1B5B
C494 500V120
HEATER 200V
BLK
27V(p-p)(H)
150V(p-p)(H)
P904 8P2.5mm
H903
TO CRT D/M
GND
GND
NC
NC
HEATER
NC
NC
+200V
EH
EF
EF
ES
T461 TFB4115AR
FOCUS
SCREEN
FV
SV
R1
3/L
C445 200VT0.047μ
V.DY
L462
DY
H.DY.
H401
L441 TLN21310
R441 1FR1K
R487 150K
R481 22K
C481 M0.1
7.2
2.4
Q470 2PC1815Y
1.8
R482 22K
R488 56K
R499 1.5Ω C/S
R474 180K
GJ06 SHORT
C478 M0.056
C477 M0.056
Q420 2SC3852 OR 2SD1944H
50V(p-p)(V)
R473 180K
Q422 PRF2000(23144539C) PRF2000(23144450F)
D423 1N4148
+9V-1
11.5V
R425 1/2R3.3K
10V
R426 820
R428 560
C420 16V100μ
Q421 2PC1815Y
7.8V
7.4V
D420 MTZJ7.5A UZ7.5B5A
R427 3.9K
+12V
+27V
R217 1K
R227 6.2KΩ
R218 8.2KΩ
D302 EU2A
C310 35V2200μ
C303 500VB470
-27V
R327 2R3.3
D460 EU2A
C460 35V330μ
R469 1/2FR15
D406 EU2A
C448 250V33μ
C448 160V33μ
R478 1/2F39K
C475 630VT0.01
D474 MTZJ12B UZ12B5B RD12E3AB2
270V(p-p)(H)
R372 3.9K
R370 1/2R1.0
R371 5.6K
C370 16V100μ
27.3
27.5
0
Q370 2PA101SY
R373 1.6K
D370 MTZJ2.7A UZ2.7B5A
Q371 SHORT
C371 16V10μ
R374 15K
R480 1/2R2.2K
R485 110K
R343 15K
#4
#2
D466 MTZJ5.6B RD5.6E3AB2 UZ5.6B3B
D464 MTZJ12A RD12E3AB1 UZ12B5A
GJ465 SHORT
10.5
0.7
Q461 2PC1815Y 2SC1740S
C341 0.47μ
R341 47K
C340 0.47μ
Q462 2PC1815Y OR 2SC1740S
D424 1N4148
R430 100
125V
R432 1/2FR27
9.8
2.9
10.4
D431 1N4148
R429 OPEN
Q430 2SC2655Y
D430 MTZJ5.1C RD5.1E3A
D433
Q402 2SC1569(FA-5)
R411 330
0.4
27
R415 1R2.7K
C413 500VB820
R416 5W5.6K
T401 TLN1083 H.DRIVE TRANS
Q404 2SD2253FA H.OUT
-20
123V
1050V(p-p)(H)
C444 1.8K6200
C440 1.5KV8000
C417 500VB390
C416 200V1μ
R458 82Ω
R459 82Ω


+9V
+27V
+12V
-27V
+9V-1
125V
R330 1K
C319 B1000
R473 180K
R480 1/2R2.2K
R465 110K
R343 15K
R372 3.9K
R370 1/2R1.0
R371 5.6K
C370 16V100μ
C371 16V10μ
R374 15K
C341 0.47μ
R478 1/2P33K
C475 630VT0.01
C446 250V33μ
R217 1K
R227 6.2KG
R218 8.2KG
C310 35V2200μ
C303 500VB470
R337 2R3.3
C460 35V330μ
R469 1/2FR15
C448 160V33μ
C445 200VT0.047μ
R416 5W5.6K
R415 1R2.7K
C413 500VB820
C417 500VB390
C416 200V1μ
C467 630VT0.015
C473 1μ
R441 1FR1K
R442 1R51K
C441 400V0.3μ
C442 400V0.33
C429 400VT0.043
L442 (RA) TLN3384D 23248122
(RB) TLN3063 23221894
L441 TLN21310
C444 1.8KB200
C440 1.5KV8000
R313 56K
R304 39K
R305 1R0.82
C305 0.1μ
C306 25V4700μ
C307 100VM0.047
R342 2K1K
C494 500V120
D441 MTZJ9.1B UZ9.1BSB
R426 820
R428 560
C420 16V100μ
R427 3.9K
C484 0.47μ
C485 0.47μ
C341 0.47μ
C473 1μ
D466 MTZJ5.6B RD5.6ESA82 UZ5.6BSB
D464 MTZJ12A RD12ESA81 UZ12BSA
D470 MTZJ2.7A UZ2.7BSA
D474 MTZJ12B UZ12BSB RD12ESA82
D460 EU2A
D406 EU2A
D302 EU2A
D424 1N4148
D423 1N4148
D431 1N4148
D461 ERC20-06
D462 1SS32
D430 MTZJ5.1C RD5.1ESA UZ5.1B3C
D433 MTZJ5.1C RD5.1ESA B3 UZ5.1B3C
Q461 2PC1815Y OR 2SC1740S
Q470 2PA1015Y
Q402 2SC1569(FA-5)
Q404 2SD2253FA H.OUT
Q421 2PC1815Y
Q430 2SC2655Y
D420 MTZJ7.5A UZ7.5BSA
T401 TLN1083 H.DRIVE TRANS
T461 TFB4115AR
L463 TEP2011 or TEM2011Y
L462 DY
FOCUS
SCREEN
V.DY
H.DY.
EH
EF
E5
BLK
HEATER
270V(p-p)(H)
1050V(p-p)(H)
150V(p-p)(H)
27V(p-p)(H)
50V(p-p)(V)
H.Vcc SW
GATE
+5V
Protecter
GND-2
V.FB
SCL
SDA
V.D
P704 4P2.3mm
H701
+12V
NC
NC
125V
V/M
P401 8P5mm
H401

SCHEMATIC DIAGRAM MODEL: 3350DE : 3350DH (3/3)

U904 BACK/AV BOARD PB6157F(3350DE)/PB6157L(3350DH)

U905 COMB/SECAM

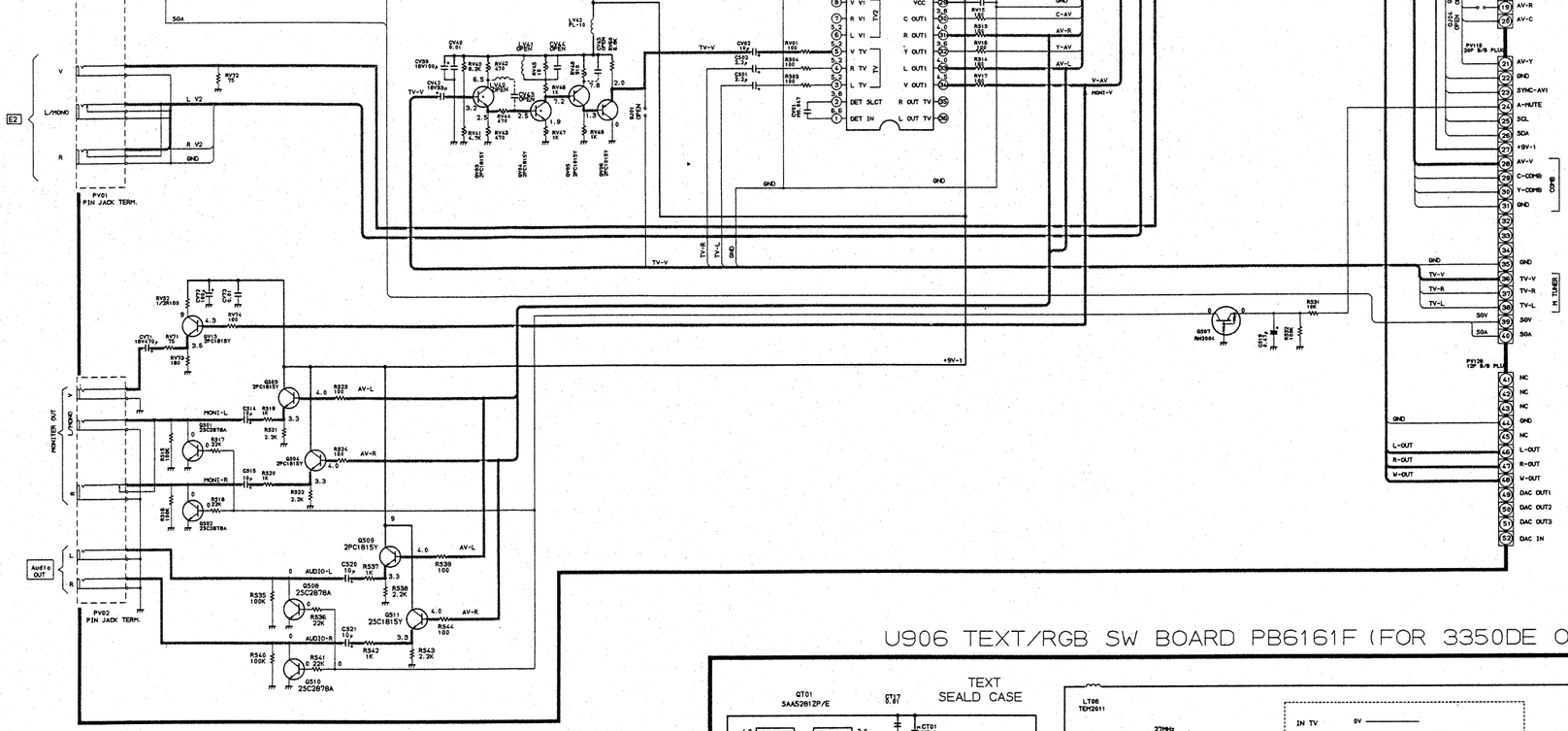
U901

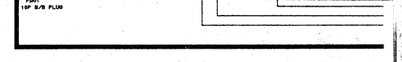
3.4Vp-p(H)

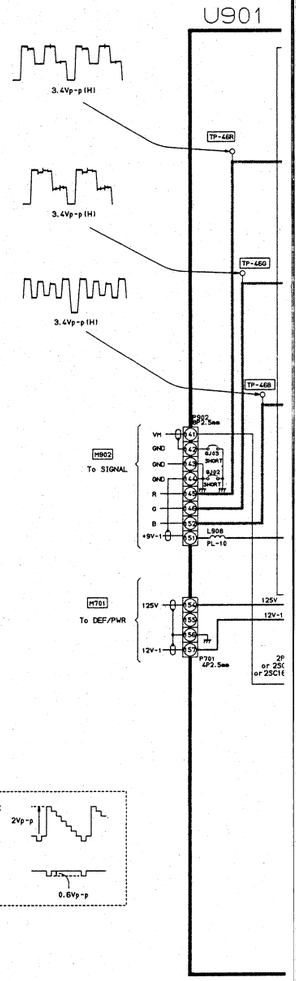
3.4Vp-p(H)

3.4Vp-p(H)

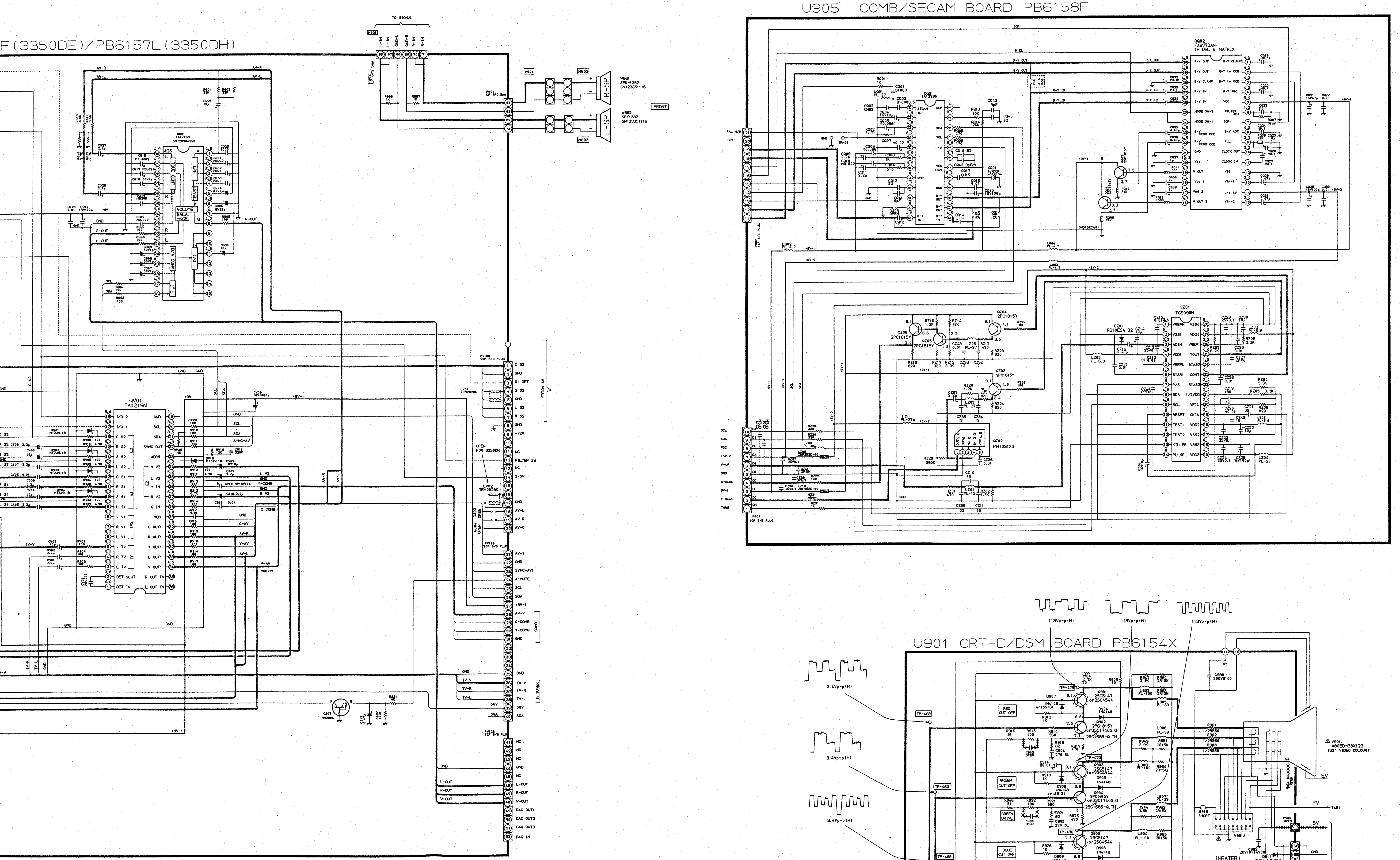
U906 TEXT/RGB SW BOARD PB6161F (FOR 3350DE ONLY)



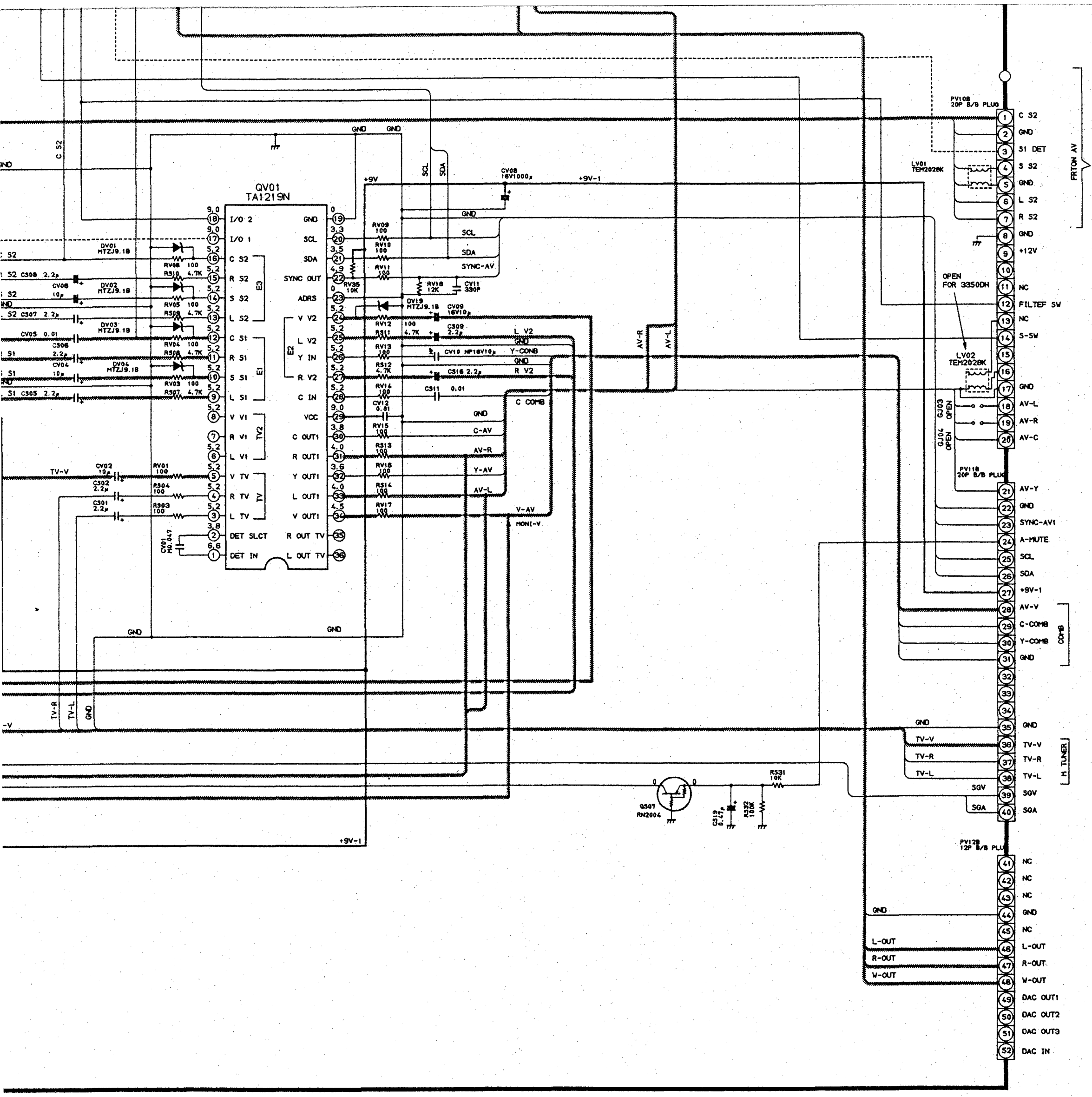


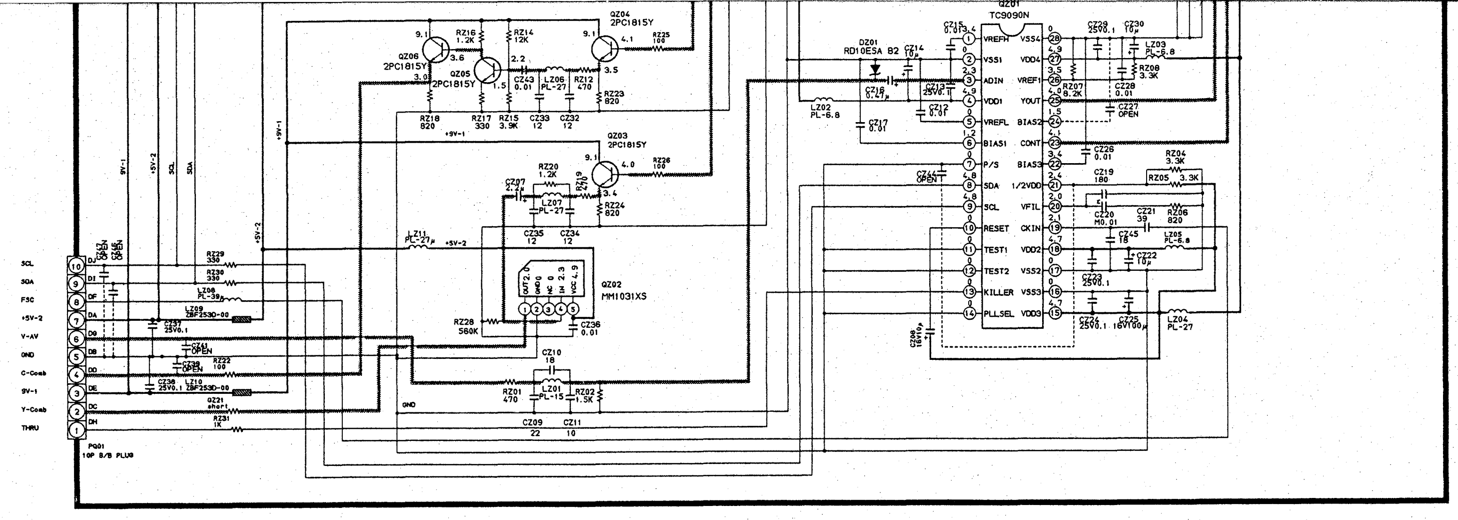


3350DE : 3350DH (3/3)

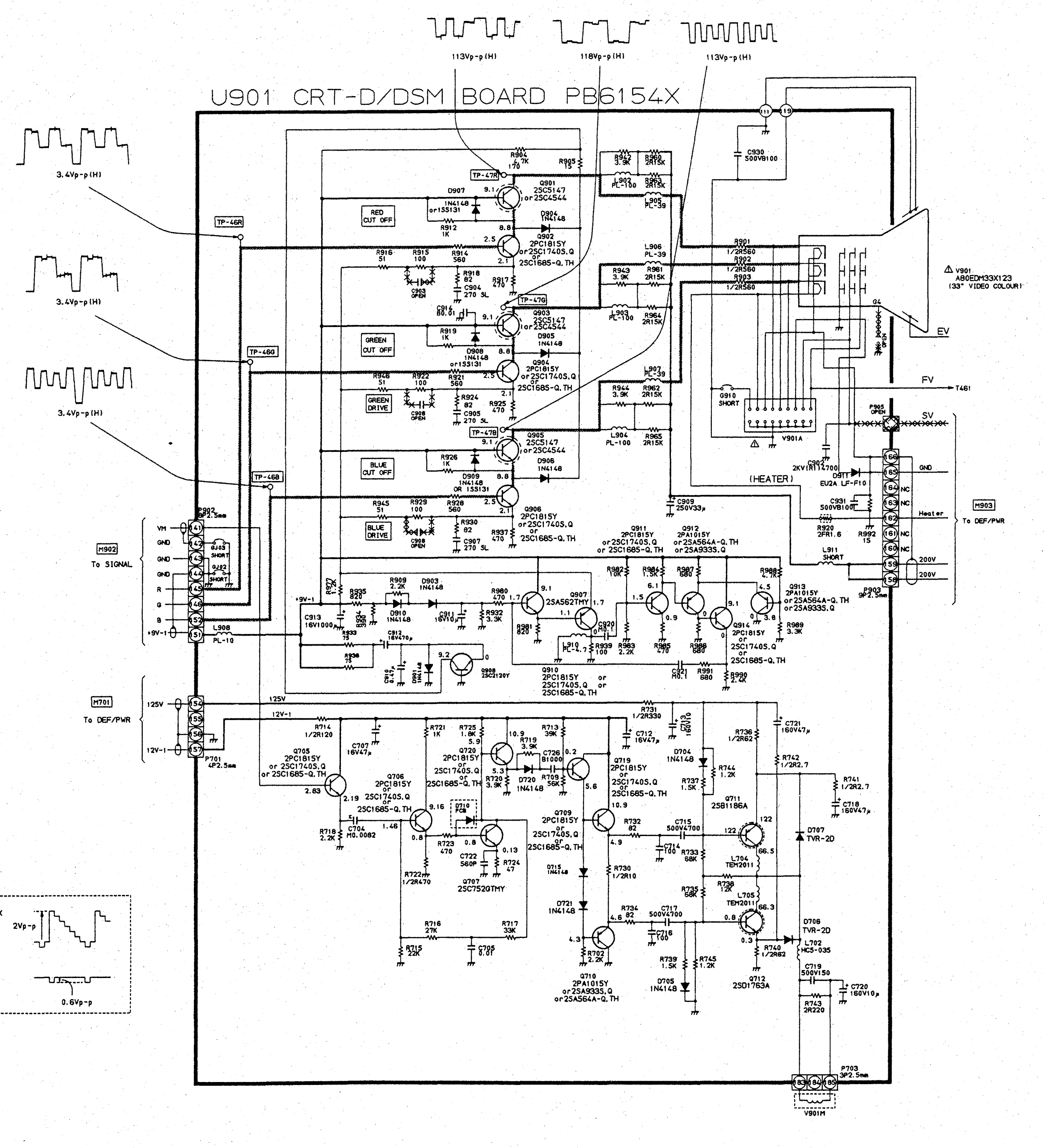


F(3350DE)/PB6157L(3350DH)
TO SIGNAL
QG01 TA1216N SN:23904928
QV01 TA1219N
W661 SPK-1382 SN:23351116
W662 SPK1382 SN:23351116
FRONT
PV10B 20P B/B PLUG
PV11B 20P B/B PLUG
PV12B 12P B/B PLUG
OPEN FOR 3350DH
LV02 TEM2028K
FRTON AV
COMB
M TUNER
U905 COMB/SECAM BOARD PB6158F
QQ01 TA1229N
QQ02 TA8772AN 1H DEL & MATRIX
QZ01 TC9090N
QZ02 MM1031XS
PQ01 10P B/B PLUG
PQ02 11P B/B PLUG
U901 CRT-D/DSM BOARD PB6154X
113Vp-p(H)
118Vp-p(H)
113Vp-p(H)
3.4Vp-p(H)
3.4Vp-p(H)
3.4Vp-p(H)
RED CUT OFF
GREEN CUT OFF
GREEN DRIVE
BLUE CUT OFF
V901 A80EDM33X123 (33" VIDEO COLOUR)
(HEATER)

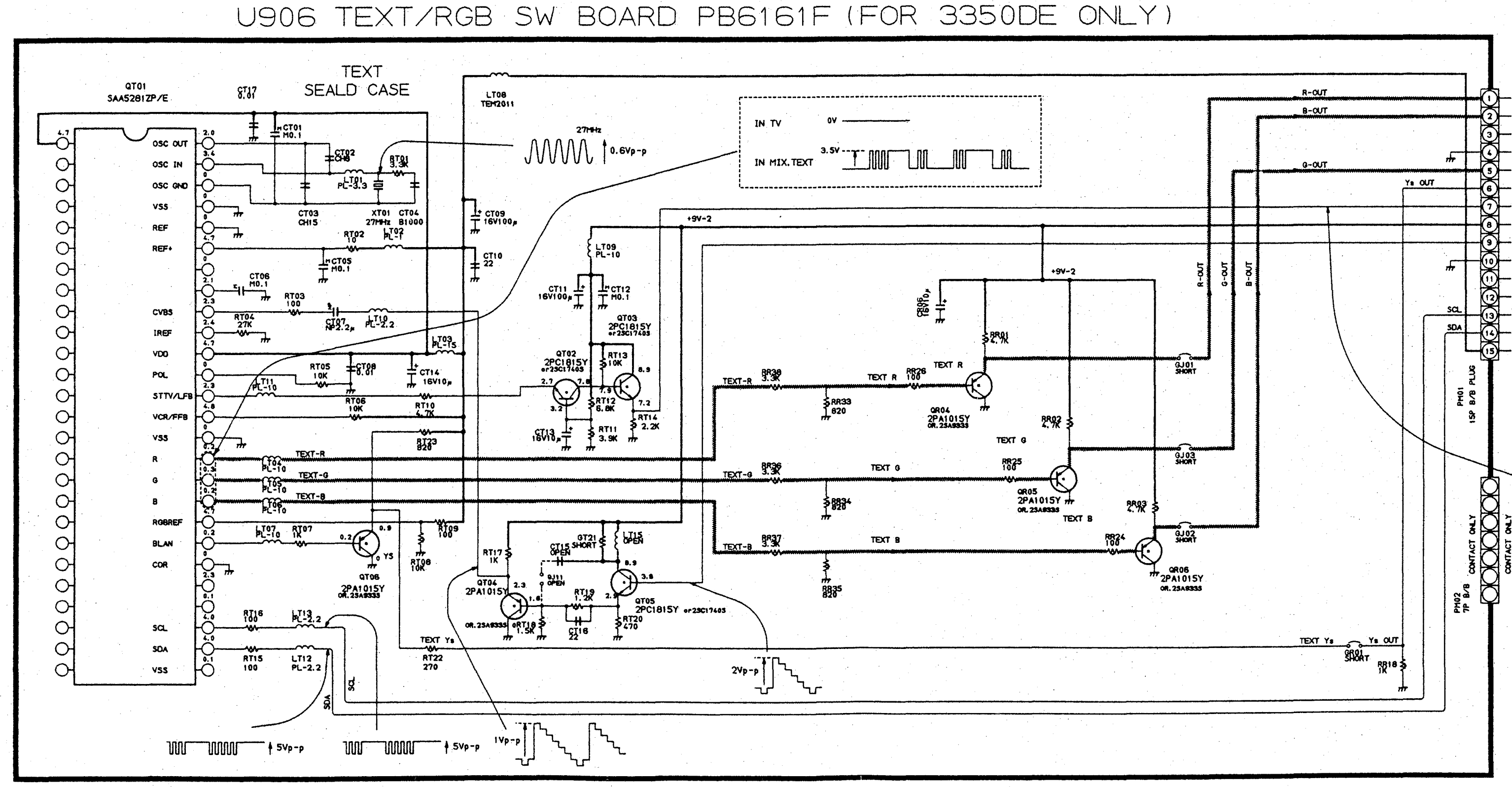

QV01
TA1219N
PV10B 20P B/B PLUG
PV11B 20P B/B PLUG
PV12B 12P B/B PLUG
FRTON AV
COMB
H TUNER
OPEN FOR 3350DH
LV01 TEM2028K
LV02 TEM2028K
Q507 RN2004
C S2
GND
S1 DET
S S2
L S2
R S2
+12V
NC
FILTEF SW
S-SW
AV-L
AV-R
AV-C
AV-Y
SYNC-AV1
A-MUTE
SCL
SDA
+9V-1
AV-V
C-COMB
Y-COMB
TV-V
TV-R
TV-L
SGV
SGA
L-OUT
R-OUT
W-OUT
DAC OUT1
DAC OUT2
DAC OUT3
DAC IN



U901 CRT-D/DSM BOARD PB6154X


113Vp-p(H)
118Vp-p(H)
113Vp-p(H)
3.4Vp-p(H)
3.4Vp-p(H)
3.4Vp-p(H)
TP-46R
TP-46G
TP-46B
TP-47R
TP-47G
TP-47B
RED CUT OFF
GREEN CUT OFF
GREEN DRIVE
BLUE CUT OFF
BLUE DRIVE
V901 A80EDM33X123 (33" VIDEO COLOUR)
EV
FV
T461
SV
(HEATER)
M902 To SIGNAL
M903 To DEF/PWR
M701 To DEF/PWR
V901A
V901M
P902 8P2.5mm
P903 9P2.5mm
P701 4P2.5mm
P703 3P2.5mm

U906 TEXT/RGB SW BOARD PB6161F (FOR 3350DE ONLY)



SPECIFICATIONS

Input Power Rating: 140 W, AC 220 V, 50/60 Hz

Aerial Input Impedance: 75 ohm unbalanced type for VHF, UHF and CATV

Television System and Channels:

System	VHF	UHF	CATV
PAL B/G	2 ~ 12	21 ~ 69	X ~ Z + 2, S1 ~ S41
SECAM B/G	2 ~ 12	21 ~ 69	X ~ Z + 2, S1 ~ S41
PAL D/K	1 ~ 12	13 ~ 57	Z-1 ~ Z-35
SECAM D/K	1 ~ 12	21 ~ 69	X1 ~ X19
PAL I	–	21 ~ 69	–
NTSC M US	2 ~ 13	14 ~ 79	A-6 ~ A-1, A ~ W, AA ~ BBB
NTSC M JAPAN	1 ~ 12	13 ~ 62	M1 ~ M10, S1 ~ S41

Intermediate Frequencies:

Picture I-F carrier frequency ..... 38.0 MHz
Sound I-F carrier frequency ..... 33.5 MHz (4.5 MHz M)
32.5 MHz (5.5 MHz B/G)
32.0 MHz (6.0 MHz I)